

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 2-1-2012
API #: 47-009-00101

Farm name: Mark Owen Operator Well No.: 3H (832801)

LOCATION: Elevation: 1170' Quadrangle: Bethany, WV

District: Buffalo County: Brooke
Latitude: 1050' Feet South of 40 Deg. 15 Min. 00 Sec.
Longitude 10730 Feet West of 80 Deg. 32 Min. 30 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
P.O. Box 18496				
Oklahoma City, OK 73154-0496	20"	100'	100'	Driven
Agent: Eric Gillespie	13 3/8"	382'	382'	447 cf
Inspector: Bill Hendershot	9 5/8"	1770'	1770'	820 cf
Date Permit Issued: 4/8/2011	5 1/2"	13019'	13019'	2797 cf
Date Well Work Commenced: 8/10/2011				
Date Well Work Completed: 11/5/2011				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 5,973'(Cement plug @12,925')				
Total Measured Depth (ft): 13,020'				
Fresh Water Depth (ft.): 175'				
Salt Water Depth (ft.): 1271'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 309'-320'				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 6,308'-12,865'
Gas: Initial open flow 1,534 MCF/d Oil: Initial open flow 134 Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 3,882 psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Marlene Williams
Signature

5/8/2012
Date

RECEIVED
Office of Oil & Gas
MAY 9 2012
WV Department of
Environmental Protection

Were core samples taken? Yes _____ No ^X_____

Were cuttings caught during drilling? Yes _____ No ^X_____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list LWD GR from 5,381'-12,970' MD

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

(See Attached)

Plug Back Details Including Plug Type and Depth(s): Cement @ 12,925'

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>/</u>	<u>Bottom Depth</u>
<u>Surface:</u>			

(See Attached)

Mark Owen 3H

MD

<u>Lithology</u>	<u>Top Depth (ft)</u>	<u>Bottom Depth (ft)</u>
SHALE	0	100
SHALE/LIMESTONE	100	220
SHALE/SANDSTONE/LIMESTONE	220	280
SHALE/SANDSTONE	280	309
COAL	309	320
SHALE/LIMESTONE/SILTSTONE/COAL	320	360
SHALE/LIMESTONE/SILTSTONE/SANDSTONE	360	385
SHALE/LIMESTONE	385	450
SHALE	450	540
SHALE/LIMESTONE	540	720
SHALE/LIMESTONE/SANDSTONE	720	780
SHALE/SANDSTONE	780	840
SHALE/SANDSTONE/LIMESTONE	840	900
SHALE/SANDSTONE	900	990
SHALE/LIMESTONE/SANDSTONE/SILTSTONE	990	1050
SHALE	1050	1075
SHALE/SILTSTONE/SANDSTONE	1075	1130
SHALE/SANDSTONE	1130	1200
SHALE/LIMESTONE/SANDSTONE	1200	1290
SHALE/SILTSTONE	1290	1320
SHALE/LIMESTONE	1320	1410
SHALE/SANDSTONE	1410	1430
SHALE/SANDSTONE/LIMESTONE	1430	1456
BIG INJUN	1456	1654
SHALE	1654	5847
GENESEO	5847	5869
TULLY	5869	5940
HAMILTON	5940	6130
MARCELLUS	6130	11340

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012
API #: 47-017-04035 - R

Farm name: Shatley, Fletcher G. Operator Well No.: Bates 2

LOCATION: Elevation: 1245' GL Quadrangle: Smithburg 7.5

District: McClellan County: Doddridge
Latitude: 2,240 Feet South of 39 Deg. 22 Min. 30 Sec.
Longitude 11,150 Feet West of 80 Deg. 37 Min. 30 Sec.

Company: Petroleum Development Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
120 Genesis Boulevard Bridgeport, WV 26330	11 3/4"	174'	174'	230
Agent: Bob Williamson	8 5/8"	1869'	1869'	618
Inspector: David Scranage	4 1/2"	5481'	5481'	921
Date Permit Issued: 02/10/2010				
Date Well Work Commenced: 03/25/2010				
Date Well Work Completed: 03/30/2010				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 5516'				
Total Measured Depth (ft): 5516'				
Fresh Water Depth (ft.): 140'				
Salt Water Depth (ft.): None Reported				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 136'-39', 445'-448'				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Gordon Pay zone depth (ft) 2988'
Gas: Initial open flow NT MCF/d Oil: Initial open flow --- Bbl/d
Final open flow 60 MCF/d Final open flow 5 Bbl/d
Time of open flow between initial and final tests 48 Hours
Static rock Pressure NT psig (surface pressure) after --- Hours

Second producing formation Pay zone depth (ft) ---
Gas: Initial open flow --- MCF/d Oil: Initial open flow --- Bbl/d
Final open flow --- MCF/d Final open flow --- Bbl/d
Time of open flow between initial and final tests --- Hours
Static rock Pressure --- psig (surface pressure) after --- Hours

OCT 17 2012

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

10/16/2012
Date

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes _____ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Pioneer Wireline GR/CCL log from 3100' to 2500'.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

2010/03/26: JW ran a gamma/ccl log to correlate. Ran in hole with 4-1/2" composite bridge plug. Set plug @ 3030'. JW shot the GORDON formation with the following shots(HSC): 12 (2988-94"). RDMOL. 2010/03/29: MIRU Service rig. Run in hole with 2-3/8" Blue Dot packer on 2-7/8" tubing. Set packer depth at bottom of tubing run @ 2445'. RDFN. 2010/03/30: Halliburton completed the GORDON formation. The formation was pumped without incident according to schedule. The job was a N2 ASSIST, X-LINK with 250 sks of 20/40 mesh white sands. The breakdown pressure was 2466 psi. The well treated at an average foam rate of 12.8 bpm with an average treating pressure of 3,492 psi. The final pressures were as follows: ISIP: 2529 psi, 2 min shut-in: 2067 psi, 5 min shut-in: 1933 psi, 10 min shut-in: 1833 psi, 15 min shut-in: 1768 psi.

Plug Back Details Including Plug Type and Depth(s):

2 7/8" packer was retrieved & bridge plug drilled out & cleaned to 5380'.

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>Bottom Depth</u>
<u>Surface:</u>		

See Attached WR-35 & "Well Log" from original completion of this well (47-017-04035).

007 17 4012

BATES #2

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1ST	Benson	13(5332'-5335')	50	400	500	60
2nd	Big Injun	18(2355'-2361')	50	400	500	60

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
KB - GL	0	10	1/2" water @ 140'
sand, shale, RR	10	2004	
Maxton	2004	2095	Coal @136'-139', 445'-448'
sand, shale	2095	2178	
Big Lime	2178	2315	gas chk @ 2347' No Show
sand, shale	2315	2334	
Big Injun	2334	2408	gas chk @2378' 6/10 thru 2"/water
sand, shale	2408	2556	
Weir	2556	2641	
sand, shale	2641	2764	
Berea	2764	2800	gas chk @2502' 6/10 thru 2"/water
sand, shale	2800	2959	
Gordon	2959	3004	
sand, shale	3004	3282	gas chk @2660' 4/10 thru 2"/water
5th	3282	3332	gas chk @2861' 6/10 thru 2"/water
sand, shale	3332	3633	gas chk @4029' 4/10 thru 2"/water
Warren	3633	3718	gas chk @5205' 4/10 thru 2"/water
sand, shale	3718	3740	
Speechley	3740	3982	gas chk @5297' 4/10 thru 2"/water
sand, shale	3982	4030	gas chk @5590' 4/10 thru 2"/water
Balltown	4030	4419	
sand, shale	4419	4492	gas chk @5516' 6/10 thru 2"/water
Bradford	4492	4609	
sand, shale	4609	4830	
Riley	4830	5263	
sand, shale	5263	5329	
Benson	5329	5390	
sand, shale		5516	Drillers TD
		5517	Logger TD

END 17 1971

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012
API #: 47-017-04105 W

Farm name: Hinter, Phyllis, Et Al Operator Well No.: Cox Heirs 3

LOCATION: Elevation: 1257' GL Quadrangle: New Milton 7.5

District: New Milton County: Doddridge
Latitude: 1,030 Feet South of 39 Deg. 10 Min. 00 Sec.
Longitude 4,630 Feet West of 80 Deg. 42 Min. 30 Sec.

Company: Petroleum Development Corporation

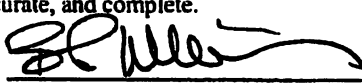
Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
120 Genesis Boulevard Bridgeport, WV 26330	11 3/4"	177'	177'	128
Agent: Bob Williamson	8 5/8"	1815'	1815'	615
Inspector: David Scranage	4 1/2"	5662'	5662'	902
Date Permit Issued: 04/27/2009				
Date Well Work Commenced: 07/28/2009				
Date Well Work Completed: 08/07/2009				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 5750'				
Total Measured Depth (ft): 5750'				
Fresh Water Depth (ft.): 40', 1784'				
Salt Water Depth (ft.): None Reported				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): None Reported				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Gordon Pay zone depth (ft) 2970'
Gas: Initial open flow 237 MCF/d Oil: Initial open flow 5 Bbl/d
Final open flow 103 MCF/d Final open flow 5 Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure NT psig (surface pressure) after --- Hours

Second producing formation Weir (commingled) Pay zone depth (ft) 2624'
Gas: Initial open flow --- MCF/d Oil: Initial open flow --- Bbl/d
Final open flow --- MCF/d Final open flow --- Bbl/d
Time of open flow between initial and final tests --- Hours
Static rock Pressure --- psig (surface pressure) after --- Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

10/16/2012
Date

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes _____ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Hotwell Wireline GR/CCL log from 3000' - 2400'.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

2009/08/07: MIRU Hotwell Service Wireline & Halliburton Frac Crew. Ran in hole and set composite bridge plug at 3,010'. Pressure tested lines to 4,500 psig. Filled hole with 12 bbl of acid and treated water. Pressure tested to 3,500 psig. Perforated and fractured Gordon

formation. Stimulated well with 30 quality N2 assist, 25004 lbs of 20/40 white sand and 65117 scf N2 (ATP 2352 psig, MTP 2597 psig) (Avg Rates 23.6 bpm; 4089 scfm). Broke down formation at 2597 psig.

Pumped a pad of 27 bbl, 2,150 scf @ 17.9 bpm, 1,316 scfm. Ramped sand concentrations from .5-4 ppa in 287 bbl, 5,161 scfm @ 26.3 bpm, 62,838 scf. Pumped 330 bbl of slurry. Flushed with 7 bbl spacer, 12 bbl 20% HCl.

& 31 bbl of treated H2O @ 11 bpm. ISIP 1,627 psig, 2 min 1,483 psig, 5 min 1,373 psig, 10 min 1,333 psig, 15 min 1,313 psig. Hotwell set a flow through comp. plug at 2,683'. Perforated and fractured Weir formation.

Stimulated well with 30 quality N2 assist, 31,563 lbs of 20/40 white sand and 155,079 scf N2 (ATP 2,763 psig, MTP 3,644 psig) (Avg Rates 22.0 bpm; 5,305 scfm). Broke down formation at 3644 psig. Pumped a

Plug Back Details Including Plug Type and Depth(s): pad of 50 bbl, 6617 scf @ 17.1 bpm, 1995 scfm. Ramped sand concentrations from .5-3 ppa in 264 bbl, 92110 scfm

@ 23 bpm, 5,704 scfm. Held 3# sand concentration for 62 bbl, 19,456 scf @ 24 bpm, 5,779 scfm. Held 4# sand concentration for 45 bbl, 20,722 scf @ 18.5 bpm, 5,783 scf. **

Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			

See Attached WR-35 & "Well Log" from original completion of this well (47-017-04105).

**Pumped 299 bbl of slurry in ramp. Pumped 107 bbls of slurry in 3 & 4# holds. Flushed with 32 bbl of H2O @ 11 bpm ISIP 2580 psig, 1 min 2183 psig, 2 min 2152 psig, 5 min 2097 psig, 10 min 2060 psig, 15 min 2034 psig.

47-177

COX HEIRS #3

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1st	Alexander	16 (5532' - 5535')	58	306	500	50
2nd	Benson	16 (5132' - 5135')	58	310	500	39

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
KB - GL	0	10	1/2" water @ 40'
sand, shale, RR	10	2112	
Maxton	2112	2228	
sand, shale	2228	2306	1" water @ 1784'
Big Lime	2306	2398	gas chk @ 2291' No Show
sand, shale	2398	2403	
Big Injun	2403	2452	gas chk @ 2387' No Show
sand, shale	2452	2595	
Weir	2595	2652	
sand, shale	2652	2764	
Berea	2764	2788	gas chk @ 2448' No Show
sand, shale	2788	2972	
Gordon	2972	2983	gas chk @ 2670' No Show
sand, shale	2983	3312	
Bayard	3312	3333	gas chk @ 2750' No Show
sand, shale	3333	3622	gas chk @ 2921' No Show
Warren	3622	3757	gas chk @ 3110' No Show
sand, shale	3757	3785	gas chk @ 3444' No Show
Speechley	3785	4154	gas chk @ 4333' No Show
sand, shale	4154	4204	gas chk @ 5119' No Show
Balltown	4204	4611	gas chk @ 5212' No Show
sand, shale	4611	4646	gas chk @ 5274' No Show
Bradford	4646	4817	
sand, shale	4817	5000	gas chk @ 5430' No Show
Riley	5000	5174	gas chk @ 5682' No Show
sand, shale	5174	5228	gas chk @ TD No Show
Benson	5228	5270	
sand, shale	5270	5344	
Leopold	5344	5455	
sand, shale	5455	5475	
Alexander	5475	5590	
sand, shale	5590	5750	Drillers TD
		5748	Logger TD

COT 17 194

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012
API #: 47-017-04106 ☒

Farm name: Hinter, Phyllis, Et Al Operator Well No.: Cox Heirs 4

LOCATION: Elevation: 1,124' GL Quadrangle: New Milton 7.5

District: New Milton County: Doddridge
Latitude: 2,830 Feet South of 39 Deg. 10 Min. 00 Sec.
Longitude 4,820 Feet West of 80 Deg. 42 Min. 30 Sec.

Company: Petroleum Development Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>120 Genesis Boulevard</u>				
<u>Bridgeport, WV 26330</u>	<u>16"</u>	<u>12'</u>	<u>12'</u>	<u>Sanded In</u>
Agent: <u>Bob Williamson</u>	<u>11 3/4"</u>	<u>174'</u>	<u>174'</u>	<u>124</u>
Inspector: <u>David Scranage</u>	<u>8 5/8"</u>	<u>1745'</u>	<u>1745'</u>	<u>599</u>
Date Permit Issued: <u>04/27/2009</u>	<u>4 1/2"</u>	<u>5579'</u>	<u>5579'</u>	<u>904</u>
Date Well Work Commenced: <u>07/27/2009</u>				
Date Well Work Completed: <u>07/29/2009</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): <u>5616'</u>				
Total Measured Depth (ft): <u>5616'</u>				
Fresh Water Depth (ft.): <u>127', 1638'</u>				
Salt Water Depth (ft.): <u>None Reported</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>None Reported</u>				
Void(s) encountered (N/Y) Depth(s) <u>N</u>				


OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Gordon Pay zone depth (ft) 2838'
Gas: Initial open flow 237 MCF/d Oil: Initial open flow 8 Bbl/d
Final open flow 146 MCF/d Final open flow 3 Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure NT psig (surface pressure) after — Hours

Second producing formation Weir (commingled) Pay zone depth (ft) 2442'
Gas: Initial open flow — MCF/d Oil: Initial open flow — Bbl/d
Final open flow — MCF/d Final open flow — Bbl/d
Time of open flow between initial and final tests — Hours
Static rock Pressure — psig (surface pressure) after — Hours

OCT 17 2012

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

10/16/2012
Date

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes _____ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list _____
Hotwell Wireline GR/CCL log from 3000' - 2300'.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

07/27/2009: MIRU Hotwell Service Wireline & ran in hole and set composite bridge plug at 2,890'. RU BJ Serv. & Stimulated well with 30 quality N2 assist, 20,129 lbs of 20/40 white sand and 64,000 scf N2(ATP 2,470 psig, MTP 2,676 psig) (Avg Rates 20bpm; 6,600 scfm). Broke down formation at 2,065 psig. Pumped a pad of 39 bbl, 18,000 scf @ 15 bpm, 6,600 scfm. Ramped sand concentrations from 5-4 pps in 154 bbl. 46,000 scfm @ 20 bpm, 6,600 scfm. Pumped 175 bbl of slurry (154 bbl of clean Linear 1,500 Gel). Flushed with 2 bbl spacer, 10 bbl 15% HCl, & 35 bbl of treated H2O @ 19 bpm. ISIP 1855 psig, 1 min 1524 psig, 2 min 1500 psig, 5 min 1432 psig, 10 min 1404 psig, 15 min 1380 psig. Hotwell set a flow through comp. plug at 2,513'. Stimulated well with 25 quality N2 assist, 35157 lbs of 20/40 white sand and 155000 scf N2 (ATP 3233 psig, MTP 3326 psig) (Avg Rates 22 bpm; 7700 scfm). Broke down formation at 2130 psig. Pumped a pad of 64 bbl, 24000 scf @ 22 bpm, 6700 scfm. Ramped sand concentrations from 5-3 pps in 283 bbl. 115000 scfm @ 23 bpm, 7700 scfm. Held 3# sand concentration for 17 bbl, 8000 scf @ 23 bpm, 7700 scfm. Held 4# sand concentration for 17 bbl, 8000 scf @ 23 bpm, 7700 scf. Pumped 315 bbl of slurry in ramp. ~~Plug Back Details Including Plug Type and Depth(s):~~ (283 bbl of clean Linear 1500 Gel). Pumped 38 bbls of slurry in 3 & 4# holds (34 bbl of clean Linear 2000 Gel). Flushed with 40 bbl of H2O @ 23 bpm. ISIP 2263 psig, 1 min 1858 psig, 2 min 1828 psig, 5 min 1795 psig, 10 min 1770 psig, 15 min 1740 psig.

Formations Encountered: _____ Top Depth _____ / _____ Bottom Depth _____
Surface: _____

See Attached WR-35 & "Well Log" from original completion of this well (47-017-04106).

001-17-100

COX HEIRS #4

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1st	Alexander	13 (5212' - 5363')	50	400	500	51
2nd	Benson/Riley	12 (4644' - 4997')	50	400	500	45

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
KB - GL	0	10	1/2" water @ 127'
sand, shale, RR	10	1943	1/2" water @ 1638'
Maxton	1943	2012	
sand, shale	2012	2204	gas chk @ 2109' No Show
Big Lime	2204	2249	gas chk @ 2173' No Show
sand, shale	2249	2252	gas chk @ 2235' No Show
Big Injun	2252	2326	
sand, shale	2326	2424	gas chk @ 2362' No Show
Weir	2424	2535	
sand, shale	2535	2630	gas chk @ 2580' No Show
Berea	2630	2656	
sand, shale	2656	2819	gas chk @ 2771' No Show
Gordon	2819	2850	
sand, shale	2850	3170	gas chk @ 2990' No Show
5th	3170	3218	gas chk @ 3084' No Show
sand, shale	3218	3470	gas chk @ 3366' No Show
Warren	3470	3642	
sand, shale	3642	3760	
Speechley	3760	4140	
sand, shale	4140	4154	
Balltown	4154	4434	
sand, shale	4434	4491	
Bradford	4491	4642	gas chk @ 4555' No Show
sand, shale	4642	4826	
Riley	4826	4049	
sand, shale	4049	5092	gas chk @ 5056' No Show
Benson	5092	5132	
sand, shale	5132	5186	gas chk @ 5150' No Show
Leopold	5186	5234	
sand, shale	5234	5328	gas chk @ 5305' No Show
Alexander	5328	5469	gas chk @ 5522' No Show
sand, shale	5469	5616	Drillers TD
		5621	Logger TD

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012
API #: 47-017-04108 F

Farm name: Underwood, Richard A. Operator Well No.: G Rogers 1

LOCATION: Elevation: 956' GL Quadrangle: Salem 7.5

District: _____ County: _____
Latitude: 13.795 Feet South of 39 Deg. 22 Min. 30 Sec.
Longitude 8.584 Feet West of 80 Deg. 35 Min. 00 Sec.

Company: Petroleum Development Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
120 Genesis Boulevard Bridgeport, WV 26330	16"	30'	30'	Sanded In
Agent: Bob Williamson	11 3/4"	177'	177'	130
Inspector: David Scranage	8 5/8"	1609'	1609'	511
Date Permit Issued: 03/22/2010	4 1/2"	5045'	5045'	929
Date Well Work Commenced: 04/05/2010				
Date Well Work Completed: 04/06/2010				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 5087'				
Total Measured Depth (ft): 5087'				
Fresh Water Depth (ft.): 50', 270'				
Salt Water Depth (ft.): None Reported				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 200'				
Void(s) encountered (N/Y) Depth(s) N				

RECEIVED
Office of Oil & Gas
OCT 17 2012

WV Department of
Environmental Protection

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Gordon Pay zone depth (ft) 2578, 2854
Gas: Initial open flow 84 MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 119 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure NT psig (surface pressure) after _____ Hours

Second producing formation Keener (commingled) Pay zone depth (ft) 1893
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

10/16/2012
Date

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes _____ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Pioneer Wireline GR/CCL log from 2800' to 1650'.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

MIRU Pioneer Wireline & Halliburton: Pioneer ran a GR/CCL to correlate. Set 4 1/2" composite bridge plug @ 2730'.

Halliburton bullheaded 20% HCl acid into well and filled hole with water to pressure test. Pressure tested casing to 3500 psi. Well held pressure. Bled off pressure and turned well back over to perforators.

Pioneer shot the GORDON formation with the following shots(HSC): 9 (2657-61') & 9 (2577-61'). Halliburton completed the GORDON formation. The formation was pumped without incident according to schedule. The job was a N2 ASSIST, X-LINK (30Q foam) with 300 sks of 20/40 mesh brown sand. The breakdown pressure was 2494 psi. The well treated at an average foam rate of 21.9 bpm with an average treating pressure of 2700 psi. The final pressures were as follows: ISIP: 2179 psi, 2 min shut-in: 1866 psi, 5 min shut-in: 1736 psi, 10 min shut-in: 1639 psi, 15 min shut-in: 1570 psi. Spotted acid and flushed for second stage.

Pioneer set a 4-1/2" composite flow-through fracplug. Set plug @ 1940'. Chased the frac ball to plug and shot The KEENER formation with the following ***

Plug Back Details Including Plug Type and Depth(s):

Bridge plug set @ 2730', frac plug set @ 1940', both drilled out & hole cleaned to original TD of 5089'.

Formations Encountered:
Surface:

Top Depth

/

Bottom Depth

See Attached WR-35 & "Well Log" from original completion of this well (47-017-04108).

RECEIVED
Office of Oil & Gas

OCT 17 2012

WV Department of
Environmental Protection

*** shots(HSC): 12 (1906-12') & 4(1893-95'). Halliburton completed the KEENER formation. The formation was pumped without incident according to schedule.

The job was a N2 ASSIST, X-LINK (30Q foam) with 296 sks of 20/40 mesh brown sand. The breakdown pressure was 1055 psi. The well treated at an average foam rate of 14.8 bpm with an average treating pressure of 3217 psi. The final pressures were as follows: ISIP: 2970 psi, 2 min shut-in: 2069 psi, 5 min shut-in: 1945 psi, 10 min shut-in: 1830 psi, 15 min shut-in: 1775 psi. RDMOL


Glenn Rogers #1

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1st	Benson	14 (4924' - 4978')	50	550	500	58

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
KB - GL	0	10	Hole damp @ 50'
sand, shale, RR	10	1634	1/2 stream water @270'
Maxton	1634	1722	
sand, shale	1722	1832	gas chk @ 1763' No Show
Big Lime	1832	1922	
sand, shale	1922	1925	gas chk @ 1919' No Show
Big Injun	1925	1974	
sand, shale	1974	2158	gas chk @2103' 10/10 thru 1"/water
Weir	2158	2262	gas chk @2259' 50/10 thru 1"/water
sand, shale	2262	2350	
Berea	2350	2382	
sand, shale	2382	2656	gas chk @2506' 14/10 thru 1"/water
Gordon	2656	2680	
sand, shale	2680	2912	gas chk @2693' 6/10 thru 2"/water
5th	2912	2980	
sand, shale	2980	3236	gas chk @3127' 6/10 thru 2"/water
Warren	3236	3340	
sand, shale	3340	3377	
Speechley	3377	3795	gas chk @3502' 4/10 thru 2"/water
sand, shale	3795	3850	
Balltown	3850	4248	
sand, shale	4248	4266	
Bradford	4266	4427	
sand, shale	4427	4638	
Riley	4638	4861	gas chk @4809' 4/10 thru 2"/water
sand, shale	4861	4906	
Benson	4906	4962	gas chk @4965' 4/10 thru 2"/water
sand, shale		5089	Drillers TD
		5087	Logger TD

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012
API #: 47-033-03159 

Farm name: Haron, Ray A. Operator Well No.: Haron 1

LOCATION: Elevation: 1322' GL Quadrangle: Clarksburg

District: Simpson County: Harrison
Latitude: 7.580 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 3.420 Feet West of 80 Deg. 15 Min. 00 Sec.

Company: Petroleum Development Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>120 Genesis Boulevard</u> <u>Bridgeport, WV 26330</u>	<u>11 3/4"</u>	<u>17'</u>	<u>Pulled</u>	
Agent: <u>Bob Williamson</u>	<u>8 5/8"</u>	<u>1179'</u>	<u>1179'</u>	<u>354</u>
Inspector: <u>Tim Bennett</u>	<u>4 1/2"</u>	<u>4684'</u>	<u>4684'</u>	<u>820</u>
Date Permit Issued: <u>04/30/2009</u>				
Date Well Work Commenced: <u>06/18/2009</u>				
Date Well Work Completed: <u>06/18/2009</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): <u>4718'</u>				
Total Measured Depth (ft): <u>4718'</u>				
Fresh Water Depth (ft.): <u>86', 361'</u>				
Salt Water Depth (ft.): <u>920', 950'</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>290', 697', 770'</u>				
Void(s) encountered (N/Y) Depth(s) <u>N</u>				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation 5th Sand Pay zone depth (ft) 2518
Gas: Initial open flow 188 MCF/d Oil: Initial open flow Bbl/d
Final open flow 442 MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests 48 Hours
Static rock Pressure 330 psig (surface pressure) after 24 Hours

Second producing formation 4th Sand (commingled) Pay zone depth (ft) 2302
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

10/16/2012
Date

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes _____ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Hotwell Wireline GR/CCL from 2710-1600.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

6/18/2009: MIRU Weatherford & Hotwell Wireline. Run GR/CCL log from 2710-1600 & set BP at 2550 & perf. 5th Sand from 2518-26 (16 holes). RU Weatherford & pumped an N2 (35Q) assist Aquavis 15# gel w/ 29,870 lbs of 20/40 sand, 149,112 SCF N2, & 448 bbls treated fluid. Break at 2098 psi & avg treating foam rate was 17.6 BPM & ATP was 2452 psi. ISIP = 1849 psi, 5min = 1590psi, 10 min = 1570 psi, 15 min = 1555 psi. RU Hotwell & set frac plug @ 2320' & perf. 4th Sand from 2302-08 (24 holes). RD Hotwell & RU Weatherford & pumped an N2 (35Q) assist Aquavis 15# gel w/ 26,452 lbs of 20/40 sand, 138,421 SCF N2, & 438 bbls treated fluid. Break at 3575 psi & avg treating foam rate was 14.6 BPM & ATP was 2876 psi. ISIP = 1663 psi, 5min = 1422 psi, 10 min = 1419 psi, 15 min = 1404 psi. RDMO Weatherford. Plug Back Details Including Plug Type and Depth(s):

Drillable bridge & frac plugs at 2550 & 2330. Drilled & cleaned out to original TD.

Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			

See Attached WR-35 & "Well Log" from original completion of this well (47-033-3159).

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.
Perforated the Benson with 13 shots (4611'-15'). Performed gelled H2O frac w/N2
assist using 608 bbl of sand laden fluid (15,000# of 80/100 sand and 50,000# of
20/40 sand). Also used 71,000 scf of N2.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
KB - GL			0	10	
sand, shale			10	1406	1/2" stream H2O @ 86'; 3/4" stream
little lime			1406	1422	H2O @ 361'; 1 3/4" stream H2O @
sand, shale, redrock			1422	1467	920'; 2 3/4" stream H2O @ 950'
big lime			1467	1524	coal @ 190'; 697'; 770'
big injun			1524	1630	
sand, shale			1630	1966	gas @ 1675'; 4/10 = 1"w/H2O
50 foot			1966	2014	
sand, shale			2014	2017	
30 foot			2017	2034	
sand, shale			2034	2130	gas @ 2080'; 4/10 = 1"w/H2O
gordon stray			2130	2136	
sand, shale			2136	2146	
gordon			2146	2160	
sand, shale			2160	2302	gas @ 2267'; 4/10 = 1"w/H2O
4th sand			2302	2325	
sand, shale			2325	2353	
4th 'A'			2353	2389	
sand, shale			2389	2501	gas @ 2424'; 2/10 = 7"w/H2O
5th sand			2501	2526	
sand, shale			2526	3090	gas @ 2612'; 2/10 = 7"w/H2O
speechley			3090	3206	
sand, shale			3206	3293	
balltown			3293	3403	gas @ 3304'; 40/10 = 2"w/H2O
sand, shale			3403	4374	gas @ 3584'; 42/10 = 2"w/H2O
riley			4374	4440	gas @ 4054'; 36/10 = 2"w/H2O
sand, shale			4440	4592	gas @ 4364'; 40/10 = 2"w/H2O
benson			4592	4616	gas @ 4582'; 30/10 = 2"w/H2O
sand, shale			4616	4718	TD logger
				4735	TD driller
					gas @ 4643'; 40/10 = 2"w/H2O
					gas @ TD; 62/10 = 2" w/H2O

(Attach separate sheets as necessary)

PETROLEUM DEVELOPMENT CORPORATION

Well Operator

By:

Date:

4/22/85

Note: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic
detailed geological record of all formations, including
all, encountered in the drilling of a well."

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012
API #: 47-033-03162 F

Farm name: Harron, Ray A. Operator Well No.: Harron 2

LOCATION: Elevation: 1249' GL Quadrangle: Clarksburg 7.5

District: Simpson County: Harrison
Latitude: 8.490 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 1.890 Feet West of 80 Deg. 15 Min. 00 Sec.

Company: Petroleum Development Corporation

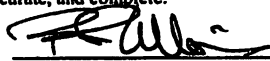
Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>120 Genesis Boulevard</u>				
<u>Bridgeport, WV 26330</u>	<u>11 3/4"</u>	<u>15'</u>	<u>15'</u>	<u>Cement to Surface</u>
Agent: <u>Bob Williamson</u>	<u>8 5/8"</u>	<u>1063'</u>	<u>1063'</u>	<u>371</u>
Inspector: <u>Tim Bennett</u>	<u>4 1/2"</u>	<u>4593'</u>	<u>4593'</u>	<u>880</u>
Date Permit Issued: <u>04/30/2009</u>				
Date Well Work Commenced: <u>6/17/2009</u>				
Date Well Work Completed: <u>6/18/2009</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): <u>4634'</u>				
Total Measured Depth (ft): <u>4634'</u>				
Fresh Water Depth (ft.): <u>20', 208', 365'</u>				
Salt Water Depth (ft.): <u>936'</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>196', 540'</u>				
Void(s) encountered (N/Y) Depth(s) <u>N</u>				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation 5th Sand Pay zone depth (ft) 2404
Gas: Initial open flow 50.4 MCF/d Oil: Initial open flow Bbl/d
Final open flow 60 MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure 120 psig (surface pressure) after 24 Hours

Second producing formation Gordon (perf only) Pay zone depth (ft) 2039
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

10/16/2012
Date

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.
Perforated the Benson with 13 shots (4457'-67'). Treated the well using a gelled water frac w/N2 assist using 603 bbl of sand laden fluid (15,000# of 80/100 sand and 50,000# of 20/40 sand). Also used 71,000 scf of N2.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
KB - GL			0	10	
sand, shale, redrock			10	1371	1½" stream H2O @ 20'; ½" stream H2O @ 208'; ½" stream H2O @ 365'; 1" stream H2O @ 936'
big lime			1371	1448	
sand, shale			1448	1460	
big injun			1460	1526	coal @ 196'; 540'
sand, shale			1526	1868	gas @ 1577'; 10/10= 1"w/H2O
gantz			1868	1877	
sand, shale			1877	1884	
50 foot			1884	1930	
sand, shale			1930	1937	
30 foot			1937	1944	
sand, shale			1944	2024	gas @ 1983'; 6/10= 1"w/H2O
gordon stray			2024	2045	
sand, shale			2045	2047	
gordon			2047	2067	
sand, shale			2067	2126	
3rd sand			2126	2146	
sand, shale			2146	2197	gas @ 2170'; 4/10= 1"w/H2O
4th sand			2197	2217	
sand, shale			2217	2254	gas @ 2233'; 4/10= 1"w/H2O
4th 'A'			2254	2289	
sand, shale			2289	2395	gas @ 2326'; 12/10= 1"w/H2O
5th sand			2395	2425	gas @ 2420'; 14/10= 1"w/H2O
sand, shale			2425	2995	
speechley			2995	3103	
sand, shale			3103	3229	gas @ 3196'; 10/10= 1"w/H2O
balltown			3229	3312	
sand, shale			3312	4248	gas @ 3414'; 8/10=1" w/H2O
riley			4248	4311	gas @ 4194'; 8/10=1" w/H2O
sand, shale			4311	4437	gas @ 4413'; 18/10= 1"w/H2O
benson			4437	4470	
sand, shale			4470	4634	TD logger
				4662	TD driller
					gas @ 4507'; 100/10= 1"w/H2O
					gas @ TD; 6/10= 2"w/H2O

(Attach separate sheets as necessary)

PETROLEUM DEVELOPMENT CORPORATION

Well Operator

By: 

Date: 4/22/85

Note: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012
API #: 47-033-03388 F

Farm name: Angotti, Michael, Et Al Operator Well No.: Jarvis 1-A

LOCATION: Elevation: 1201' GL Quadrangle: Clarksburg 7.5

District: Clark County: Harrison
Latitude: 8.430 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude: 3.630 Feet West of 82 Deg. 20 Min. 00 Sec.

Company: Petroleum Development Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
120 Genesis Boulevard Bridgeport, WV 26330	11 3/4"	38'	38'	Sanded In
Agent: Bob Williamson	8 5/8"	1225'	1225'	351
Inspector: Tim Bennett	4 1/2"	4691'	4691'	748
Date Permit Issued: 06/06/2007				
Date Well Work Commenced: 7/15/2008				
Date Well Work Completed: 7/18/2008				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 4743'				
Total Measured Depth (ft): 4743'				
Fresh Water Depth (ft.): 990'				
Salt Water Depth (ft.): None Reported				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): None Reported				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation 5th Sand Pay zone depth (ft) 2535
Gas: Initial open flow 237 MCF/d Oil: Initial open flow Bbl/d
Final open flow 51 MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests 48 Hours
Static rock Pressure 90 psig (surface pressure) after 36 Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

10/16/2012
Date

OCT 17 2012

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes _____ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Superior Wireline GR log from 2700' - 1500'.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

7/15/2008: MIRU BJ Tools & Superior Wireline. Set a BJ retrievable bridge plug @ 2610' & RD BJ. RU Superior & run a correlation GR & perf the Fifth Sand with 20 holes from 2535 - 2589. RDMO Superior & RU BJ Services & pumped a N2 assist Lightning 1400 fluid system with 48,000 lbs of 30/50 sand & 534 bbls treated fluid & 89,339 SCF of N2. Break at 2,220 psi & avg. treating foam rate was 17 BPM & ATP was 1,957 psi. ISDP=1990psi, 5 min=1,742 psi.

Plug Back Details Including Plug Type and Depth(s): Retrievable bridge plug at 2610' pulled after job & cleaned to original TD.

Formations Encountered: _____ Top Depth _____ / _____ Bottom Depth _____
Surface: _____

See Attached WR-35 & "Well Log" from original completion of this well (47-033-3388).

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1ST	BENSON	13 (4585 - 4592)	100	400	500	60

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
KB - GL			0	10	
sand, shale, RR			10	1562	1/2" stream H2O @ 990
Big Lime			1562	1625	
sand, shale			1625	1630	
Keener			1630	1644	
sand, shale			1644	1649	
Big Injun			1649	1708	
sand, shale			1708	2133	gas check @ 1988' no show
30 ft			2133	2157	
sand, shale			2157	2182	
Gordon Stray			2182	2200	
sand, shale			2200	2215	
Gordon			2215	2248	
sand, shale			2248	2390	
4th			2390	2434	
sand, shale			2434	2470	
4th A			2470	2486	
sand, shale			2486	2540	gas check @ 2516' no show
5th			2540	2575	
sand, shale			2575	3008	
Upper Speechley			3008	3162	gas check @ 3028' 50/10 - 1" H2O
sand, shale			3162	3244	
Speechley			3244	3385	
sand, shale			3385	3446	
Balltown			3446	3638	gas check @ 3555' 80/10 - 1" H2O
sand, shale			3638	3840	
Bradford			3840	3924	
sand, shale			3924	4388	
Riley			4388	4442	
sand, shale			4442	4572	gas check @ 4553' 80/10 - 1" H2O
Benson			4572	4594	gas check @ 4647' 10/10 - 2" H2O
sand, shale			4594	4743	Driller TD 76/10 - 1" H2O
				4736	Logger TD

(Attach separate sheets as necessary)

PETROLEUM DEVELOPMENT CORPORATION

Well Operator

By:

Date:

Note: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012
API #: 47-033-03404 F

Farm name: Lee, Florence G. Et Al Operator Well No.: Lee 1

LOCATION: Elevation: 1337 GL Quadrangle: Clarksburg 7.5

District: Clark County: Harrison
Latitude: 8.280 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude: 2.040 Feet West of 80 Deg. 20 Min. 00 Sec.

Company: Petroleum Development Corporation

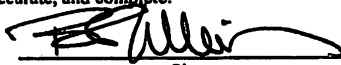
Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
120 Genesis Boulevard Bridgeport, WV 26330	11 3/4"	290'	290'	351
Agent: Bob Williamson	8 5/8"	1363'	1363'	351
Inspector: Tim Bennett	4 1/2"	4834'	4834'	722
Date Permit Issued: 3-5-2010				
Date Well Work Commenced: 3/15/2010				
Date Well Work Completed: 3/15/2010				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 4868'				
Total Measured Depth (ft): 4868'				
Fresh Water Depth (ft.): 200', 400'				
Salt Water Depth (ft.): None				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 250-54, 390-94, 1118-20				
Void(s) encountered (N/Y) Depth(s) None				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation 5th Sand Pay zone depth (ft) 2701
Gas: Initial open flow 103 MCF/d Oil: Initial open flow Bbl/d
Final open flow 63 MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure 70 psig (surface pressure) after 24 Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

10/16/2012
Date

01 10 2012

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes _____ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list JW Wireline GR/CCL from 4868-2300.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

3/15/2010: MIRU JW Wireline & run GR/CCL log from 4868-2300. Set Bridge Plug at 2750 and RU Halliburton & bullhead 20% HCl into well & filled hole w/water to pressure test. Press. test csg to 3500 psi. Test OK. Bleed off pressure & Perforate from 2701-2706 (10) & 2715-2720 (10) (Fifth SS). Halliburton pumped an N2 assist X-link with 302 sks of 20/40 brown sand. Break at 1776 psi & avg treating foam rate was 19.6 BPM & ATP was 2153 psi. ISIP = 1844psi, 5min = 1571 psi, 10 min = 1448 psi, 15 min = 1305 psi RDMO Halliburton. 3/16/2010: RU EC & RU swab tools and swab to TD and RU to run tubing & release and trip Bridge Plug out. Release Energy Contractors. 4/7/2012: RU PDC Rig #223 & tag TD at 4800' & swab dry & TIL. Plug Back Details Including Plug Type and Depth(s): Temp RBP at 2750' pulled after frac.

Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			

See Attached WR-35 & "Well Log" from original completion of this well (47-033-3404).

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1ST	BENSON	13 (4753 - 4757)	100	500	500	69

648 BRLS SAND LADEN FLUID

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fres and salt water, coal, oil and ga
KB - GL			0	10	
sand, shale, RR			10	1660	1/2" stream H2O @ 200'
Little Lime			1660	1676	1/2" stream H2O @ 400'
sand, shale			1676	1700	
Big Lime			1700	1764	
Big Injun			1764	1853	
sand, shale			1853	2202	
Gantz			2202	2214	
50 ft			2214	2260	gas check @ 2281' no show
30 ft			2260	2300	
sand, shale			2300	2334	
Gordon			2334	2408	gas check @ 2406' 6/10 - 1" H2O
sand, shale			2408	2590	
4th			2590	2640	
sand, shale			2640	2694	
5th			2694	2732	gas check @ 2720' 6/10 - 1" H2O
sand, shale			2732	3289	
Speechley			3289	3412	
sand, shale			3412	3534	
Balltown			3534	3626	gas check @ 3588' 18/10 - 2" H2O
sand, shale			3626	3790	
Bradford			3790	4070	
sand, shale			4070	4538	gas check @ 4304' 16/10 - 2" H2O
Riley			4538	4606	gas check @ 4584' 16/10 - 2" H2O
sand, shale			4606	4736	
Benson			4736	4788	gas check @ 4772' 26/10 - 2" H2O
sand, shale			4788	4868	Driller TD 12/10 - 2" H2O
				4864	Logger TD

(Attach separate sheets as necessary)

PETROLEUM DEVELOPMENT CORP.
Well Operator
By: [Signature]
Date: 4/21/87

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012

API #: 47-033-03480 F

Farm name: Larosa, James Operator Well No.: Yates 1

LOCATION: Elevation: 1147' GL Quadrangle: Clarksburg 7.5

District: Simpson County: Harrison
Latitude: 5780 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 4,180 Feet West of 80 Deg. 15 Min. 00 Sec.

Company: Petroleum Development Corporation

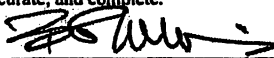
Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>120 Genesis Boulevard</u>				
<u>Bridgeport, WV 26330</u>	<u>11 3/4"</u>	<u>32'</u>	<u>---</u>	<u>---</u>
Agent: <u>Bob Williamson</u>	<u>8 5/8"</u>	<u>921'</u>	<u>921'</u>	<u>295</u>
Inspector: <u>Tim Bennett</u>	<u>4 1/2"</u>	<u>4634'</u>	<u>4634'</u>	<u>653</u>
Date Permit Issued: <u>02/19/2010</u>				
Date Well Work Commenced: <u>03/09/2010</u>				
Date Well Work Completed: <u>03/10/2010</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): <u>4663'</u>				
Total Measured Depth (ft): <u>4663'</u>				
Fresh Water Depth (ft.): <u>155', 446'</u>				
Salt Water Depth (ft.): <u>None Recorded</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>349-51, 445-47, 543-48'</u>				
Void(s) encountered (N/Y) Depth(s) <u>N</u>				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Riley Pay zone depth (ft) _____
Gas: Initial open flow 84 MCF/d Oil: Initial open flow 3 Bbl/d
Final open flow 146 MCF/d Final open flow 1/2 Bbl/d
Time of open flow between initial and final tests 12 Hours
Static rock Pressure NT psig (surface pressure) after --- Hours

Second producing formation Fifth Sand (commingled) Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

10/16/2012
Date

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes _____ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list _____

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

3/9/2010: MURU JW Wireline and Halliburton JW ran a gamma/cel log to correlate. Ran in hole with 4-1/2" composite bridgeplug. Set plug @ 4230' Halliburton bullheaded 15% HCl acid into well and filled hole with water to pressure test. Pressure tested casing to 3500 psi. Well held pressure. JW shot the RILEY formation with the following shots(HSC): 10 (4189-93') & 6 (4182-85'). Halliburton completed the RILEY formation. The formation was really tight, pumped near max casing pressure entire job without incident. Job could not be pumped according to schedule. The job was a N2 ASSIST, X-LINK (with ~500 foam) with 26 sbs of 100 mesh and 78 sbs of 20/40 mesh white sands. The breakdown pressure was 3268 psi. The well treated at an average foam rate of 14.7 bpm with an average treating pressure of 3286 psi. The final pressures were as follows: ISIP: 2319 psi, 2 min shut-in: 2076 psi, 5 min shut-in: 1885 psi, 10 min shut-in: 1937 psi, 15 min shut-in: 1908 psi. Spotted acid and flushed for second stage. JW set a 4-1/2" composite flow-through fracplug. Set plug @ 2410'. Chased the frac ball to plug and shot The 5TH SAND formation with the following shots(HSC): 18 (2374-80'). **Plug Back Details Including Plug Type and Depth(s):** Halliburton completed the 5TH SAND formation. Pumped more sand than original design due to the way zone was treating. The job was a N2 ASSIST, X-LINK with 330 sbs of 20/40 mesh white sand. The breakdown pressure was 1746 psi. The well treated ***

Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			

See Attached WR-35 & "Well Log" from original completion of this well (47-033-03480).

***at an average foam rate of 21.4 bpm with an average treating pressure of 2232 psi. The final pressures were as follows:
ISIP: 2000 psi, 2 min shut-in: 1865 psi, 5 min shut-in: 1782 psi, 10 min shut-in: 1708 psi, 15 min shut-in: 1642 psi.

DETAILS OF PERFORATED INTER. L.S., FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Yates #1

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1ST	Benson	11(4522-4524)	100	500	500	67

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
KB - GL			10	10	
sand, shale, RR			1260	1260	
Little Lime			1275	1275	3/4" stream H2O @ 155'
sand, shale			1308	1308	Coal 349-351; 445-447
Big Lime			1372	1372	3/4" stream H2O @ 446'
Keener			1418	1418	Coal 543-546
Big Injun			1468	1468	gas chk @ 1406' 6/10-7" H2O
sand, shale			1804	1804	gas chk @ 1466' 8/10-7" H2O
Gantz			1818	1818	gas chk @ 1776' 6/10-7" H2O
sand, shale			1832	1832	
50 ft			1880	1880	
sand, shale			1889	1889	
30 ft			1912	1912	gas chk @ 1901' 4/10-7" H2O
sand, shale			1990	1990	
Gordon Stray			2003	2013	
sand, shale			2013	2043	gas chk @ 2024' 4/10-7" H2O
Gordon			2043	2154	
sand, shale			2154	2190	gas chk @ 2179' 24/10-2" Hg
3rd			2190	2213	
sand, shale			2213	2245	
4th			2245	2347	
sand, shale			2347	2380	gas chk @ 2364' 22/10-2" Hg
5th			2380	2798	
sand, shale			2798	3123	gas chk @ 2895' 20/10-2" Hg
Speechley			3123	3135	gas chk @ 3049' 20/10-2" Hg
sand, shale			3135	3454	gas chk @ 3360' 12/10-2" Hg
Balltown			3454	3632	
sand, shale			3632	3719	
Bradford			3719	4173	
sand, shale			4173	4372	gas chk @ 4261' 15/10-2" Hg
Riley			4372	4512	gas chk @ 4415' 14/10-2" Hg
sand, shale			4512	4570	gas chk @ 4569' 14/10-2" Hg
Benson			4570	4662	
sand, shale			4662	4662	Driller TD 14/10-2" Hg
				4663	Collars 14/10-2" Hg
					Logger TD

(Attach separate sheets as necessary)

PETROLEUM DEVELOPMENT CORPORATION

Well Operator

By:

Date: April 18, 1989

Note: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012
API #: 47-033-03797 *W*

Farm name: Stuart, Marsha L., Et Al Operator Well No.: E. Stuart 4

LOCATION: Elevation: 1343' GL Quadrangle: Brownston 7.5

District: Elk County: Harrison
Latitude: 10,700 Feet South of 39 Deg. 12 Min. 30 Sec.
Longitude 8,950 Feet West of 80 Deg. 12 Min. 30 Sec.

Company: Petroleum Development Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>120 Genesis Boulevard</u>				
<u>Bridgeport, WV 26330</u>	<u>11 3/4"</u>	<u>22'</u>	<u>0</u>	<u>—</u>
Agent: <u>Bob Williamson</u>	<u>8 5/8"</u>	<u>1341'</u>	<u>1341'</u>	<u>386</u>
Inspector: <u>Tim Bennett</u>	<u>4 1/2"</u>	<u>4647'</u>	<u>4647'</u>	<u>634</u>
Date Permit Issued: <u>03/23/2009</u>				
Date Well Work Commenced: <u>8/19/2009</u>				
Date Well Work Completed: <u>8/19/2009</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): <u>4685'</u>				
Total Measured Depth (ft): <u>4685'</u>				
Fresh Water Depth (ft.): <u>165'</u>				
Salt Water Depth (ft.): <u>None Reported</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>98-102, 267-71, 520-25, 892-96, 1037-40</u>				
Void(s) encountered (N/Y) Depth(s) <u>N</u>				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Bayard Pay zone depth (ft) 2644
Gas: Initial open flow 750 MCF/d Oil: Initial open flow — Bbl/d
Final open flow 193 MCF/d Final open flow — Bbl/d
Time of open flow between initial and final tests — Hours
Static rock Pressure 150 psig (surface pressure) after 72 Hours

Second producing formation 5th Sand (commingled) Pay zone depth (ft) 2584
Gas: Initial open flow — MCF/d Oil: Initial open flow — Bbl/d
Final open flow — MCF/d Final open flow — Bbl/d
Time of open flow between initial and final tests — Hours
Static rock Pressure — psig (surface pressure) after — Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

10/16/2012
Date

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes _____ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list JW Wireline GR/CCL from 3200 - 1800.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

8/19/2009: MIRU JW Wireline & run GR/CCL log from 3200-1800. Set SBP @ 2680' & RU BJ & bullhead 20% HCl in front of treated water & pressure test casing to 3486 psi. Held OK. Bleed off pressure & RU JW & perforate 12 holes from 2644-50 @ 2 SPF. RU BJ pumped a 30 Q N2 assist X-link with 15,989 lbs of 20/40 sand & 323 bbls treated fluid & 120.6 MSCF of N2. Break at 4117 psi & avg treating foam rate was 24 BPM & ATP was 2914 psi. Well screened out. RDMO BJ & JW. 8/20/2009: RU EC Rig & clean sand to below perms. Set CBP at 2610'. Spot tubing for 2nd zone. BJ RU & spot 12 bbls acid over upper zone. EC pulled tbg & RU JW & perf 2584-92 w/16 holes. RDMO BJ. 8/25/2009: RU Universal & pumped a 30 Q N2 assist X-link with 216 sx of 20/40 sand & 575 bbls treated fluid & 120.0 MSCF of N2. Break at 2278 psi & avg treating foam rate was 18.9 BPM & ATP was 2754 psi. Plug Back Details Including Plug Type and Depth(s): BP's at 2680 & 2610 were drilled out & hole cleaned to original TD.

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>Bottom Depth</u>
<u>Surface:</u>		

See Attached WR-35 & "Well Log" from original completion of this well (47-033-3797).

Stuart #4

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1ST	Benson	13 (4569-4572)	0	600	500	85

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
KB - GL	0	10	
sand, shale, RR	10	1614	1/2" Stream H2O @ 165'
Little Lime	1614	1639	Coal 98-102;267-271
sand, shale	1639	1673	Coal 520-525;892-896
Big Lime	1673	1749	Coal 1037-1040
Big Injun	1749	1835	
sand, shale	1835	2034	gas chk @ 1883' No Show
Antz	2034	2052	
sand, shale	2052	2073	
ft	2073	2128	
sand, shale	2128	2137	gas chk @ 2069' No Show
30 ft	2137	2167	
sand, shale	2167	2301	gas chk @ 2224' No Show
Gordon	2301	2329	
sand, shale	2329	2449	gas chk @ 2349' No Show
4th	2449	2532	
sand, shale	2532	2574	gas chk @ 2537' No Show
5th	2574	2612	
sand, shale	2612	2642	
Bayard	2642	2654	
sand, shale	2654	2932	
Speechley	2932	3344	gas chk @ 3291' No Show
sand, shale	3344	3411	
Balltown	3411	3760	gas chk @ 3664' No Show
sand, shale	3760	3782	
Bradford	3782	3880	gas chk @ 3850' No Show
sand, shale	3880	4276	
Riley	4276	4446	gas chk @ 4417' No Show
sand, shale	4446	4548	gas chk @ 4508' No Show
Benson	4548	4544	gas chk @ 4603' 40/10-1"H2O
sand, shale	4544	4700	Drillers TD No Show
		4685	DC's 12/10-1"H2O
			Logger TD

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012
API #: 47-033-03938 F

Farm name: Bland, Franklin D. Operator Well No.: Martin 1

LOCATION: Elevation: 1116' GL Quadrangle: Wolf Summit 7.5

District: Tenmile County: Harrison
Latitude: 150 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 6.850 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: Petroleum Development Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
120 Genesis Boulevard Bridgeport, WV 26330	11 3/4"	37'	0	---
Agent: Bob Williamson	8 5/8"	975'	975'	372
Inspector: Tim Bennett	4 1/2"	5039'	5039'	785
Date Permit Issued: 4/30/2009				
Date Well Work Commenced: 3/12/2009				
Date Well Work Completed: 8/12/2009				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 5157'				
Total Measured Depth (ft): 5157'				
Fresh Water Depth (ft.): 45'				
Salt Water Depth (ft.): None Reported				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 42-45, 190-193				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Balltown Pay zone depth (ft) 3474
Gas: Initial open flow Show MCF/d Oil: Initial open flow Vapor Bbl/d
Final open flow 10 MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure NT psig (surface pressure) after Hours

Second producing formation Gordon (comingled) Pay zone depth (ft) 2488
Gas: Initial open flow Show MCF/d Oil: Initial open flow Vapor Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

10/16/2012
Date

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes _____ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list JW Wireline GR/CCL from 3800-1800.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

3/12/2009: MIRU JW Wireline & run GR/CCL log from 3800-1800 & set BP at 3520. RU BJ & pump acid/water & test csg to 3489 psi & OK. RU JW & TIH & perf 3474-78 & 3498-3502 @ 2 SPF (20 holes). RU BJ & pumped an N2 (35Q) assist linear gel w/ 13,218 lbs of 20/40 sand, 959 MSCF N2, & 280 bbls treated fluid. Break at 2054 psi & avg treating foam rate was 22.6 BPM & ATP was 2356 psi. ISIP = 1556 psi, 5min = 1478 psi, 10 min = 1467 psi, 15 min = 1461 psi. RU JW & set 2nd BP @2715. RD JW & RU BJ & pump acid/water & test csg to 3588 psi & OK. RD BJ & RU JW & perf 18 holes at 2885-91 & 20 holes from 2486-2500. RD JW & RU BJ & pumped an N2 (35Q) assist linear gel w/ 6,245 lbs of 20/40 sand, 798 MSCF N2, & 182 bbls treated fluid. Break at 2551 psi & avg treating foam rate was 20 BPM & ATP was 2927 psi. Well screened out. RDMO BJ & JW. 8-13-2009: MIRU EC rig and clean to original TD & drill out BP's. Plug Back Details Including Plug Type and Depth(s):

Drillable BP's at 3520 & 2715. Removed from hole to original TD @ 4999'.

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>Bottom Depth</u>
<u>Surface:</u>		

See Attached WR-35 & "Well Log" from original completion of this well (47-033-3938).

MARTIN #1

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1ST	Benson	13 (4923' - 4926')	50	400	500	56

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
KB - GL	0	10	
sand, shale, RR	10	1457	1/2" water @45'
Maxton	1457	1501	
sand, shale	1501	1895	Coal 42' - 45', 190' - 193'
Big Lime	1895	1960	gas chk @ 1707' No Show
sand, shale	1960	1963	
Big Injun	1963	2040	
sand, shale	2040	2376	gas chk @ 2108' No Show
Gantz	2376	2405	
sand, shale	2405	2476	
Fifty Foot	2476	2505	gas chk @ 2538' No Show
sand, shale	2505	2644	gas chk @ 2630' No Show
Gordon	2644	2704	gas chk @ 2691' 6/10 -1" w/water
sand, shale	2704	2758	
5th	2758	2794	
sand, shale	2794	3269	gas chk @ 3001' 16/10 -1" w/water
Warren	3269	3348	
sand, shale	3348	3452	
Speechley	3452	3742	gas chk @ 3619' 6/10 -1" w/water
sand, shale	3742	3775	
Balltown	3775	4162	
sand, shale	4162	4172	
Bradford	4172	4274	
sand, shale	4274	4697	
Riley	4697	4880	
sand, shale	4880	4917	
Benson	4917	4960	gas chk @ 5012' 30/10 -1" w/water
sand, shale	4960	5157	Driller TD
		5157	Logger TD
			gas chk @ TD 18/10 -1" w/water

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012
API #: 47-033-03978 F

Farm name: Long, William & Wanda Operator Well No.: Davis #1

LOCATION: Elevation: 1037' GL - 1047' KB Quadrangle: Mount Clare 7.5

District: Clark County: Harrison
Latitude: 2,650 Feet South of 39 Deg. 15 Min. 00 Sec.
Longitude 4,190 Feet West of 80 Deg. 17 Min. 30 Sec.

Company: Petroleum Development Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
120 Genesis Boulevard Bridgeport, WV 26330	11 3/4"	37'	0'	—
Agent: Bob Williamson	8 5/8"	976'	976'	307
Inspector:	4 1/2"	4421'	4421'	453
Date Permit Issued:				
Date Well Work Commenced: 11/20/2008				
Date Well Work Completed: 11/25/2008				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 4444'				
Total Measured Depth (ft): 4444'				
Fresh Water Depth (ft.): 50, 115				
Salt Water Depth (ft.): 843				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): None Reported				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation 5th Sand Pay zone depth (ft) 2422
Gas: Initial open flow 237 MCF/d Oil: Initial open flow — Bbl/d
Final open flow 64 MCF/d Final open flow — Bbl/d
Time of open flow between initial and final tests — Hours
Static rock Pressure 320 psig (surface pressure) after 24 Hours

Second producing formation — Pay zone depth (ft) —
Gas: Initial open flow — MCF/d Oil: Initial open flow — Bbl/d
Final open flow — MCF/d Final open flow — Bbl/d
Time of open flow between initial and final tests — Hours
Static rock Pressure — psig (surface pressure) after — Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

10/16/2012
Date

Were core samples taken? Yes _____ No **XX**

Were cuttings caught during drilling? Yes _____ No **XX**

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list _____

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

11/20/2008: MIRU Weatherford Services and Key Wireline. Ran Gamma/CCL log for correlation. Set a BJ Tools retrievable frac plug @ 2460'.

Perforated the 5th SAND formation: 12 (2422-28). Formation broke at 2185#. Gel frac formation. Start 82 bbl pad, 254 bbls treating fluid,

37,647 lbs of 30/50 Sand, 41 bbl of flush. Stage sand at 1# ppg increments from 1# - 4# ppg. MTP - 2564 psi, ATP - 2320 psi. Shut down, ISIP - 1659 psi,

5 min SIP - 1576 psi. RDMO

Plug Back Details Including Plug Type and Depth(s): Retrievable frac plug set at 2460', retrieved after job & cleaned to TD at 4320'.

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>Bottom Depth</u>
<u>Surface:</u>		

See attached original 47-033-03978 Pg. 2 "Well Log" from WR-35.

307 17 2008

Davis #1

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1ST	Benson	16(4294-4298)	10	450	500	62

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET
-----------	----------	-------------


REMARKS: FRESH & SALT
WATER, COAL, OIL & GAS

KB - GL	0	10	
sand, shale, RR	10	1245	
Little Lime	1245	1262	1/2" stream H2O @ 50'
sand, shale	1262	1301	1" stream H2O @ 115'
Big Lime	1301	1376	Coal 482-484
Big Injun	1376	1460	
sand, shale	1460	1783	gas chk @ 1502' No Show
50 ft	1783	1832	gas chk @ 1749' 2/10-1" H2O
sand, shale	1832	1857	
30 ft	1857	1894	
sand, shale	1894	1920	
3rd	1920	1952	
sand, shale	1952	1970	
3rd	1970	1992	
sand, shale	1992	2142	gas chk @ 2030' 2/10-1" H2O
4th	2142	2235	
sand, shale	2235	2280	
5th	2280	2312	
sand, shale	2312	2718	
Speechley	2718	3057	gas chk @ 2374' 8/10-1" H2O
sand, shale	3057	3101	
Balltown	3101	3395	gas chk @ 3117' 6/10-1" H2O
sand, shale	3395	3541	gas chk @ 3425' 6/10-1" H2O
Bradford	3541	3631	
sand, shale	3631	4111	gas chk @ 3828' 4/10-1" H2O
Riley	4111	4150	
sand, shale	4150	4284	gas chk @ 4263' 8/10-1" H2O
Benson	4284	4330	gas chk @ 4325' 8/10-2" H2O
sand, shale	4330	4449	
	4449	4449	Driller TD 8/10-2" H2O
		4438	DC's 6/10-2" H2O
			Logger TD

CUT 17 1/2"

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012
API #: 47-033-04018 

Farm name: Nazarene Church - Clarksburg Operator Well No.: Davis 2

LOCATION: Elevation: 1074' GL Quadrangle: Mount Clare 7.5

District: Clark County: Harrison
Latitude: 2,675 Feet South of 39 Deg. 15 Min. 00 Sec.
Longitude 2,575 Feet West of 80 Deg. 17 Min. 30 Sec.

Company: Petroleum Development Corporation

Address: 120 Genesis Boulevard	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Bridgeport, WV 26330	11 3/4"	42'	42'	Sanded In
Agent: Bob Williamson	8 5/8"	1071'	1071'	354
Inspector: Tim Bennett	4 1/2"	4435'	4435'	701
Date Permit Issued: 12/08/2009				
Date Well Work Commenced: 03/02/2010				
Date Well Work Completed: 03/02/2010				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 4470'				
Total Measured Depth (ft): 4470'				
Fresh Water Depth (ft.): 66', 720'				
Salt Water Depth (ft.): None Reported				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 18-21, 114-117				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation 5th Sand Pay zone depth (ft) 2266'
Gas: Initial open flow Show MCF/d Oil: Initial open flow Bbl/d
Final open flow 223 MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests 36 Hours
Static rock Pressure NT psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

10/16/2012
Date

Were cuttings caught during drilling? Yes _____ No **XX**

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Plug Back Details Including Plug Type and Depth(s):

Bridge plug set at 2330' for frac, drilled out & cleaned to original TD @ 4399'.

Formations Encountered: _____ Top Depth _____ / _____ Bottom Depth _____
Surface: _____

See Attached WR-35 & "Well Log" from original completion of this well (47-033-04018).

D. H. DAVIS #2

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1st	Benson	16 (4306' - 4310')	50	500	500	77

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
KB - GL	0	10	1/2" stream H2O @ 66'
sand, shale, RR	10	1250	3/4" stream H2O @ 720'
Little Lime	1250	1270	Coal 18'-21', 114'-117'
sand, shale	1270	1292	
Big Lime	1292	1350	
sand, shale	1350	1360	
Big Injun	1360	1462	
sand, shale	1462	1751	gas chk @ 1472' no show
Gantz	1751	1772	gas chk @ 1785' no show
sand, shale	1772	1784	
50'	1784	1822	
sand, shale	1822	1838	
30'	1838	1878	gas chk @ 1909' no show
sand, shale	1878	1970	
Gordon	1970	1995	gas chk @ 2004' no show
sand, shale	1995	2042	gas chk @ 2158' no show
4th Sand	2042	2205	
sand, shale	2205	2280	gas chk @ 2315' 32/10 - 2"/H2O
5th Sand	2280	2310	gas chk @ 3128' 14/10 - 2"/H2O
sand, shale	2310	2372	
Bayard	2372	2395	gas chk @ 3503' 20/10 - 2"/H2O
sand, shale	2395	2868	gas chk @ 3845' 20/10 - 2"/H2O
Speechly	2868	3200	
sand, shale	3200	3220	gas chk @ 4158' 24/10 - 2"/H2O
Balltown	3220	3550	gas chk @ 4281' 24/10 - 2"/H2O
sand, shale	3550	3584	
Bradford	3584	3720	gas chk @ 4345' 24/10 - 2"/H2O
sand, shale	3720	4116	
Riley	4116	4204	
sand, shale	4204	4297	
Benson	4297	4342	
sand, shale	4342	4470	gas chk @ TD 26/10 - 2"/H2O
		4478	gas chk @ COLLARS 26/10-2"/H2O
			Logger TD
			gas chk @ cementing 42/10-2"/H2O

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: Diana Goff Cather - TRST Operator Well No.: Goff 42
LOCATION: Elevation: 1360 Quadrangle: Wolf Summit 7 1/2
District: Coal County: Harrison
Latitude: 3150 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 3550 Feet West of 80 Deg. 20 Min. 30 Sec.

Company: Petroleum Development Corporation

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 120 Genesis Boulevard	13-3/8"	22'	22'	
Bridgeport, WV 26330	9-5/8"	276'	276'	100 sks
Agent: Alan H. Smith	7"	1161'	1161'	176 sks
Inspector: Tim Bennett	4-1/2"	4833'	4833'	195 sks
Date Permit Issued: 09/10/07				
Date Well Work Commenced: 02/27/08				
Date Well Work Completed: 02/27/08				
Verbal Plugging:				
Date Permission granted on:				
Rotary X Cable Rig				
Total Depth (feet): 5225'				
Fresh Water Depth (ft.): 35, 420, 890				
Salt Water Depth (ft.): None Reported				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 480, 930				

OPEN FLOW DATA

Producing formation Benson Pay zone depth (ft) 4666-80'
Gas: Initial open flow 64 MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure 630# psig (surface pressure) after 72 Hours

Second producing formation 5th Sand Pay zone depth (ft) 2597-2625'
Gas: Initial open flow 20 MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure 55# psig (surface pressure) after 72 Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: Alan H. Smith

By: Alan H. Smith

Date: 04/01/08

Goff #42
47-033-4927

FORMATION	W E L L L O G		REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
	TOP FEET	BOTTOM FEET	
		0	
sand, shale, RR	0	1590	Damp @ 20'
Little Lime	1590	1608	1/4" H2O @ 90'
sand, shale	1608	1624	
Big Lime	1624	1700	
sand, shale	1700	1702	Gas check at 2021' - no show.
Keener	1702	1734	
sand, shale	1734	1748	
Big Injun	1748	1790	
sand, shale	1790	1808	
Weir	1808	1870	
sand, shale	1870	2092	
Gantz	2092	2102	
sand, shale	2102	2180	
50 ft	2180	2264	
sand, shale	2264	2280	
30 ft	2280	2318	
sand, shale	2318	2361	
Gordon	2361	2404	
sand, shale	2404	2482	
4th	2482	2552	
sand, shale	2552	2601	
5th	2601	2648	
sand, shale	2648	2703	
Bayard	2703	2734	
sand, shale	2734	2755	
Elizabeth	2755	2800	
sand, shale	2800	2950	
Speechley	2950	3350	
sand, shale	3350	3402	
Balltown	3402	3706	
sand, shale	3706	3740	
Bradford	3740	3870	
sand, shale	3870	4216	
Riley	4216	4510	
sand, shale	4510	4662	
Benson	4662	4711	
sand, shale	4711	4855	Drillers TD
		4866	Logger TD

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012

API #: 47-033-05009

33-05099

Farm name: Harron, Carolyn S. Operator Well No.: Faris 38

LOCATION: Elevation: 998' GL / 1004' KB Quadrangle: Rosemont 7.5

District: Simpson County: Harrison
Latitude: 7,510 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 3,810 Feet West of 80 Deg. 12 Min. 30 Sec.

Company: Petroleum Development Corporation

Address: <u>120 Genesis Boulevard</u>	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>Bridgeport, WV 26330</u>	<u>13 3/8"</u>	<u>61'</u>	<u>61'</u>	<u>Sanded In</u>
Agent: <u>Bob Williamson</u>	<u>7"</u>	<u>892'</u>	<u>892'</u>	<u>215</u>
Inspector: <u>Tim Bennett</u>	<u>4 1/2"</u>	<u>4246'</u>	<u>4246'</u>	<u>376</u>
Date Permit Issued: <u>05/28/2008</u>				
Date Well Work Commenced: <u>09/10/2008</u>				
Date Well Work Completed: <u>09/24/2008</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): <u>4298'</u>				
Total Measured Depth (ft): <u>4298'</u>				
Fresh Water Depth (ft.): <u>30', 150'</u>				
Salt Water Depth (ft.): <u>None Reported</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>None Reported</u>				
Void(s) encountered (N/Y) Depth(s) <u>N</u>				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Benson Pay zone depth (ft) 4082'
Gas: Initial open flow 919 MCF/d Oil: Initial open flow Bbl/d
Final open flow NT MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure 1140 psig (surface pressure) after 72 Hours

Second producing formation Balltown (commingled) Pay zone depth (ft) 2804'
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

10/16/2012
Date

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes _____ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Weatherford Photo Dens/Array Induc/
Comp. Neutron from 4298' - 886'. Superior Wireline GR/CCL/CBL from 4252' - 1050'.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

09/24/2008: MIRU BJ Serv. & Superior Wireline, ran GR/CCL/CBL from 4252' - 1050' w/cmt top @ 1246'. Perf Benson w/15 holes from 4082'-4102'.

RU BJ & Gel frac formation w/ Lightning 1400 system. Start 104 bbl pad, 338 bbls treating fluid, 40,000 lbs of 30/50 Sand, 65 bbl of flush. Stage sand at

1# ppg increments from 1# - 4# ppg. N2 - 143,900 scf. MTP - 2900 psi, ATP - 2632 psi. Shut down, ISIP - 2023 psi, 5 min SIP - 1722 psi.

Perforated the BALLTOWN formation: 12 (2804-10). Formation broke at 2188#. Gel frac formation. Start 106 bbl pad, 267 bbls treating fluid, 35,000 lbs

of 30/50 Sand, 45 bbl of flush. Stage sand at 1# ppg increments from 1# - 4# ppg. N2 - 129,660 scf. MTP - 2023 psi, ATP - 1936 psi.

Shut down, ISIP - 1401 psi, 5 min SIP - 1276 psi, 10 min SIP - 1228 psi. RDMO.

Plug Back Details Including Plug Type and Depth(s): N/A

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>/</u>	<u>Bottom Depth</u>
<u>Surface:</u>			
Little Lime	1051	1066	
Big Lime	1103	1160	
Keener	1160	1198	
Big Injun	1198	1256	Show Gas
Gantz	1596	1609	
Fifty Foot	1622	1678	
Gordon Stray	1759	1788	
4th SS	1980	2058	
5th SS	2110	2159	
Speechley	2490	2839	
Balltown	2924	3370	Show Gas
Bradford	3374	3538	
Riley	3840	4000	
Benson	4080	4138	Show Gas
TD	4298		

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012
API #: 47-033-05137

Farm name: Carl F. Martin Operator Well No.: Martin 2

LOCATION: Elevation: 1003' GL / 1011' KB Quadrangle: Wolf Summit 7.5

District: Ten Mile County: Harrison
Latitude: 14.800 Feet South of 39 Deg. 22 Min. 30 Sec.
Longitude 8.100 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: Petroleum Development Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
120 Genesis Boulevard Bridgeport, WV 26330	13 3/8"	39	39	Sanded In
Agent: Bob Williamson	9 5/8"	254	254	100
Inspector: Tim Bennett	7"	1440	1440	292
Date Permit Issued: 8/27/2008	4 1/2"	4913'	4913'	444
Date Well Work Commenced: 10/18/2008				
Date Well Work Completed: 11/05/2008				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 5101'				
Total Measured Depth (ft): 5101'				
Fresh Water Depth (ft.): 45'				
Salt Water Depth (ft.): 1375'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): None Reported				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Benson (co-mingled) Pay zone depth (ft) 4844
Gas: Initial open flow 839 MCF/d Oil: Initial open flow Bbl/d
Final open flow 86 MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure 335 psig (surface pressure) after 72 Hours

Second producing formation 5th, 4th, Gordon Pay zone depth (ft) 2523, 2492, 2410
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.



Signature

10/16/2012

Date

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes _____ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Weatherford Photo Density/Comp Neutron/
Array Induction from 5101-1420. Superior GR/CL/CBL from 4886 - 1430.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

11-5-2008: MIRU BJ Services and Superior:Ran Bond/CCL log found TD @ 4886'. CT @ 1572'. Perforated the BENSON formation: 12 (4844-50).

Formation broke at 4200#. Gel frac formation. Start 71 bbl pad, 225 bbls treating fluid, 30,000 lbs of 30/50 Sand, 97 bbl of flush. Stage sand at 1# ppg increments from 1# - 4# ppg. MTP - 4200 psi. ATP - 2389 psi.

Shut down, ISIP - 2147 psi, 5 min SIP - 2022 psi. Perforated the formation: 8 (2857-81), 4 (2843-45), 4 (2624-28). Formation broke at 2737#. Pumped 5 bbl of Acid away.

Perforated the formation: 12 (2600-06). Formation broke at 2673#. Pumped remaining 7 bbls of acid away into formation. Perforated the 5TH SAND formation: 8 (2523-27).

Gel frac formations. Start 91 bbl pad, 277 bbls treating fluid, 50,000 lbs of 30/50 Sand. Stage sand at 1# ppg increments from 1# - 4# ppg. Spot acid and ballout formation. Start 58 bbl pad, 148 bbls treating fluid, 15,000 lbs of 30/50 Sand. 44 bbl of total flush

Stage sand at 1# ppg increments from 1# - 4# ppg. Entire interval: MTP - 3170 psi, ATP - 2717 psi. Shut down, ISIP - 2608 psi, 5 min SIP - 2266 psi.

Plug Back Details Including Plug Type and Depth(s): Perforated the 4TH/GORDON formations: 4 (2492-94), 12 (2410-16). Formation broke at 3650#.

Gel frac formation. Start 83 bbl pad, 398 bbls treating fluid, 50,000 lbs of 30/50 Sand, 39 bbls of flush. Stage sand at 0.5# ppg increments from 1# - 4# ppg. MTP - 3650 psi. ATP - 2833 psi. Shut down, ISIP - 2499 psi, 5 min SIP - 2196 psi.

Formations Encountered: _____ **Top Depth** _____ / _____ **Bottom Depth**
Surface: _____

Big Lime	1796	1851
Big Injun	1851	1952
Gantz	2284	2320
Fifty Foot	2394	2442
Gordon	2488	2527
4th SS	2560	2614
5th SS	2620	2661
Speechley	2900	3160
Balltown	3186	3490
Bradford	3500	3620
Riley	4350	4760
Benson	4840	4882
TD	5101	

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012
API #: 47-033-05138

Farm name: Fahey, William F. Operator Well No.: Fahey 4

LOCATION: Elevation: 1324' GL / Quadrangle: Wolf Summit 7.5

District: Tenmile County: Harrison
Latitude: 11.110 Feet South of 39 Deg. 22 Min. 30 Sec.
Longitude 11.210 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: Petroleum Development Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>120 Genesis Boulevard</u> <u>Bridgeport, WV 26330</u>	<u>13 3/8"</u>	<u>19'</u>	<u>19'</u>	<u>Sanded In</u>
Agent: <u>Bob Williamson</u>	<u>9 5/8"</u>	<u>253'</u>	<u>253'</u>	<u>102</u>
Inspector: <u>Tim Bennett</u>	<u>7"</u>	<u>1741'</u>	<u>1741'</u>	<u>354</u>
Date Permit Issued: <u>08/27/2008</u>	<u>4 1/2"</u>	<u>5340'</u>	<u>5340'</u>	<u>481</u>
Date Well Work Commenced: <u>10/24/2008</u>				
Date Well Work Completed: <u>11/17/2008</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): <u>5485'</u>				
Total Measured Depth (ft): <u>5485'</u>				
Fresh Water Depth (ft.): <u>45', 115'</u>				
Salt Water Depth (ft.): <u>1650'</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>395'</u>				
Void(s) encountered (N/Y) Depth(s) <u>N</u>				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Benson Pay zone depth (ft) _____

Gas: Initial open flow NT MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow 888 MCF/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock Pressure 990 psig (surface pressure) after 72 Hours

Second producing formation _____ Pay zone depth (ft) _____

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ MCF/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock Pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

10/16/2012
Date

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes _____ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Weatherford Photo Density/Comp Neutron/
Array Induction from 5482-1720. Superior GR/CL/CBL from 5330 - 1430.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

11/12/2008: MIRU BJ Serv. & Superior Wireline, ran GR/CCL/CBL from 5330'. Perf Benson w/12 holes from 5233'-5242'. RU BJ Services, test lines, & pump an N2 assist Lightning 1400 gel system. Formation broke at 2240#. Start 65 bbl pad, 257 bbls treating fluid, 35,000 lbs of 30/50 Sand, 87 bbl of flush. Stage sand at 1# ppg increments from 1# - 4# ppg. MTP - 2932 psi, ATP - 2586 psi. Shut down, ISIP - 2405 psi, 5 min SIP - 2027 psi. 2nd stage: Perforated the 5th Sand formation: 12 (3040-46). Was going in for second run on the formation and lost gun in hole. Could not go back in with live gun in hole. RDMO. 11/13/2008: MIRU Arvilla R# 1399, RU 3 3/8" bit & drill baffle at 2854 & baffle at 3150' & clean out sand & gun to 5260'. 11/17/2008: Swab & clean hole & take final OF = 888MCF. SI & TIL on 12/30/2008
Plug Back Details Including Plug Type and Depth(s): N/A

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>/</u>	<u>Bottom Depth</u>
<u>Surface:</u>			
Little Lime	2166	2182	
Big Lime	2202	2256	
Keener	2256	2300	
Big Injun	2305	2352	
Gantz	2688	2727	
Fifty Foot	2782	2840	Show Gas
Gordon Stray	2917	2928	
4th SS	2952	3004	
5th SS	3018	3061	
Speechley	3528	3950	
Balltown	3996	4244	
Bradford	4327	4473	
Riley	4768	5130	
Benson	5230	5273	Show Gas
TD	5485		

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE:
API #: 039-06282

Farm name: BROWN - PERDUE Operator Well No.: 1
LOCATION: Elevation: 714' Quadrangle: BLUE CREEK 7.5
District: Big Sandy County: Kanawha
Latitude: 38.489026 Feet South of _____ Deg. _____ Min. _____ Sec.
Longitude: -81.383592 Feet West of _____ Deg. _____ Min. _____ Sec.

Company: Raven Ridge Energy
Address: 3230 Pennsylvania Ave
Charleston WV 25302

Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Agent: <u>Ryan Cunningham</u>			
Inspector: <u>TERRY LEBAN</u>			
Date Permit Issued: <u>4/6/2011</u>	<u>9 3/8</u>	<u>395</u>	<u>CTS</u>
Date Well Work Commenced: <u>5/31/11</u>	<u>7"</u>	<u>1461</u>	<u>CTS</u>
Date Well Work Completed: <u>6/5/11</u>	<u>4 1/2</u>	<u>1950</u>	<u>120 sks</u>
Verbal Plugging:			
Date Permission granted on:			
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>			
Total Vertical Depth (ft): <u>2202</u>			
Total Measured Depth (ft): <u>2168</u>			
Fresh Water Depth (ft.): <u>60</u>			
Salt Water Depth (ft.): <u>N/A</u>			
Is coal being mined in area (N/Y)?			
Coal Depths (ft.): <u>N/A</u>			
Void(s) encountered (N/Y) Depth(s) <u>N/A</u>			

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation WEIR Pay zone depth (ft) 1705

Gas: Initial open flow 100 MCF/d Oil: Initial open flow 0 Bbl/d

Final open flow 180 MCF/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests 24 Hours

Static rock Pressure 210 psig (surface pressure) after 48 Hours

Second producing formation Big Inj Pay zone depth (ft) 1583

Gas: Initial open flow 150 MCF/d Oil: Initial open flow 0 Bbl/d

Final open flow 250 MCF/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests 36 Hours

Static rock Pressure 100 psig (surface pressure) after 48 Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

[Signature]
Signature

5/14/12
Date

RECEIVED
OFFICE OF OIL AND GAS
MAY 14 2012
WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Were core samples taken? Yes _____ No X

Were cuttings caught during drilling? Yes X No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Gamma Ray / Neutron
Density / Induction / Temperature Audio

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

WEIR 1705 - 1834 (20 HOLES) 500 BBL FOAM
TREATMENT 75% QUANTITY W 500 GAL HCL 15% ACID
25000 LBS 20/40 SAND
~~WEIR~~ Big INJUN 1583 - 1558 (20 HOLES) 500 BBL
75% QUANTITY FOAM TREATMENT W 500 GAL 15% HCL
ACID 25000 LBS 20/40 SAND
Plug Back Details Including Plug Type and Depth(s):

Formations Encountered:	Top Depth	Bottom Depth
-------------------------	-----------	--------------

<u>SAND & SHALE 0 - 275</u>	<u>WEIR 1705 - 1835</u>
<u>SAND 275 - 390</u>	<u>SHALE 1835 - 2009</u>
<u>SAND & SHALE 390 - 560</u>	<u>COFFE SHALE 2009 - 2019</u>
<u>SAND 560 - 740</u>	<u>SHALE 2019 - 2202</u>
<u>SAND & SHALE 740 - 815</u>	
<u>SALT SANDS 815 - 1232</u>	
<u>SHALE 1232 - 1292</u>	
<u>MAXTON 1292 - 1330</u>	
<u>SHALE 1330 - 1448</u>	
<u>LITTLE LIME 1448 - 1458</u>	
<u>PENCIL CAVE 1458 - 1468</u>	
<u>LITTLE LIME 1468 - 1496</u>	
<u>BIG INJUN 1496 - 1576</u>	
<u>SQUAW 1576 - 1630</u>	
<u>SHALE 1630 - 1705</u>	

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: _____
API #: 039-06283

Farm name: BLOWN-PERDUE Operator Well No.: 2

LOCATION: Elevation: 877' Quadrangle: BLUE CREEK

District: Big Sandy County: KANAWHA
Latitude: 38.486886 Feet South of _____ Deg. _____ Min. _____ Sec.
Longitude: 81.382952 Feet West of _____ Deg. _____ Min. _____ Sec.

Company: Raven Ridge Energy

Address: <u>3230 Pennsylvania Ave Charleston WV 25302</u>	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Agent: <u>Ryan Cunningham</u>				
Inspector: <u>Terry Urban</u>		<u>9 5/8</u>	<u>410'</u>	<u>CTS</u>
Date Permit Issued: <u>04/06/2011</u>		<u>7"</u>	<u>1652'</u>	<u>CTS</u>
Date Well Work Commenced: <u>5/7/11</u>		<u>4 1/2</u>	<u>2088</u>	<u>120 sk.</u>
Date Well Work Completed: <u>5/11/11</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): <u>2688</u>				
Total Measured Depth (ft): <u>2688</u>				
Fresh Water Depth (ft.): <u>NONE</u>				
Salt Water Depth (ft.): <u>NONE</u>				
Is coal being mined in area (NY)? <u>(N)</u>				
Coal Depths (ft.): <u>N/A</u>				
Void(s) encountered <u>(N)</u> Depth(s)				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation WEIR Pay zone depth (ft) 1690-2003

Gas: Initial open flow 150 MCF/d Oil: Initial open flow — Bbl/d

Final open flow 150 MCF/d Final open flow — Bbl/d

Time of open flow between initial and final tests 24 Hours

Static rock Pressure 280 psig (surface pressure) after 24 Hours

Second producing formation _____ Pay zone depth (ft) _____

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ MCF/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock Pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

[Signature]
Signature

5/14/12
Date

Were core samples taken? Yes X No _____

Were cuttings caught during drilling? Yes X No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Canna Ray / Neutron / Induction Temperature / Audio

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

PERF 1690 - 1728 (18 HOLES) 1920 - 2003 (26 HOLES)

75% FOAM 1 Stage FRAC WITH 1000 gal 15% HYDROCHLORIC PERD 35000 lbs 20/40 SAND

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered:

Top Depth

Bottom Depth

Surface:

SAND & SHALE	0 - 250	SGAN	1740 - 1780
SAND	250 - 350	SHALE	1780 - 1865
SAND & SHALE	350 - 510	WEIR	1865 - 2005
SAND	510 - 640	COFFEE SHALE	2175 - 2192
SHALE	640 - 680	SHALE	2192 - 2698
SAND & SHALE	680 - 850		
SAND	850 - 890		
SAND & SHALE	890 - 1080		
SALT SAND	1080 - 1410		
SHALE	1410 - 1465		
MAX TON	1465 - 1610		
LITTLE LIME	1610 - 1626		
PENCIL CAVE	1626 - 1630		
Big LIME	1630 - 1660		
Big INJUN	1660 - 1740		

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: _____
API #: 039-06294

Farm name: R. J. Morris Operator Well No.: 3A
LOCATION: Elevation: 868' Quadrangle: Blue Creek 7.5
District: EIK County: Kanawha
Latitude: 38.398742 Feet South of _____ Deg. _____ Min. _____ Sec.
Longitude: 81.468705 Feet West of _____ Deg. _____ Min. _____ Sec.

Company: Raven Ridge Energy

Address: <u>3230 Pennsylvania Ave Charleston WV 25302</u>	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Agent: <u>Ryan Cunningham</u>				
Inspector: <u>TERRY L. RAN</u>		<u>9 5/8"</u>	<u>390'</u>	<u>CTS</u>
Date Permit Issued: <u>06/03/2011</u>		<u>7"</u>	<u>1530'</u>	<u>CTS</u>
Date Well Work Commenced: <u>6/24/11</u>		<u>4 1/2"</u>	<u>2050'</u>	<u>1205Ks</u>
Date Well Work Completed: <u>6/29/11</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): <u>2243'</u>				
Total Measured Depth (ft): <u>2243'</u>				
Fresh Water Depth (ft.): <u>N/A</u>				
Salt Water Depth (ft.): <u>N/A</u>				
Is coal being mined in area (N/Y)?				
Coal Depths (ft.): <u>N/A</u>				
Void(s) encountered (N/Y) Depth(s) <u>N/A</u>				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation WEIR Pay zone depth (ft) 1970'-1815'
Gas: Initial open flow 250 MCF/d Oil: Initial open flow 3 Bbl/d
Final open flow 210 MCF/d Final open flow 2 Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure 180 psig (surface pressure) after 36 Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

[Signature]
Signature

5/12/12
Date

RECEIVED
Office of Oil & Gas
MA 12 12
WV Department of
Environmental Protection

Were core samples taken? Yes ☒ No ☐

Were cuttings caught during drilling? Yes ☒ No ☐

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Gamma Ray / Neutron
Density / Induction - Temperature

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

PERF: 1970-1815 (37 Holes) 750 B3K 75%
Quality Foam Frac with 500 gal HCL 15%
AND 35000 lbs 20/40 SAND

Plug Back Details Including Plug Type and Depth(s):

N/A

Formations Encountered:
Surface:

Top Depth /

Bottom Depth

SAND & SHALE	0 - 365	WEIR	1810 - 1985
SHALE	365 - 405	SHALE	1985 - 2135
SAND & SHALE	405 - 615	COFFEE SHALE	2135 - 2144
SAND	615 - 670	BEREA	2144 - 2147
SAND & SHALE	670 - 830	SHALE	2147 - 2243
SALT SAND	830 - 1350		
SAND & SHALE	1350 - 1460		
MAXTON	1460 - 1500		
SHALE	1500 - 1575		
LITTLE LIME	1575 - 1602		
SHALE	1602 - 1612		
Big LIME	1612 - 1638		
Big INJUN	1638 - 1715		
SQUAW	1715 - 1741		
SHALE	1741 - 1810		

RECEIVED
OCT 10 1986

MS. 1.1

WV DEPARTMENT OF
NATURAL RESOURCES

Geological Survey

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 9/24/11
API #: 47-039-06295

Farm name: CAVENDER Operator Well No.: 1A

LOCATION: Elevation: 749' Quadrangle: BLUE CREEK

District: EIK County: Kanawha
Latitude: _____ Feet South of _____ Deg. _____ Min. _____ Sec.
Longitude: _____ Feet West of _____ Deg. _____ Min. _____ Sec.

Company: RAVEN RIDGE ENERGY
UNION ENERGY

Address: <u>320 Pennsylvania Ave</u>	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Agent: <u>Charleston WV 25302</u>				
Inspector: <u>TERRY LEBAN</u>				
Date Permit Issued:				
Date Well Work Commenced: <u>8/22/11</u>				
Date Well Work Completed: <u>8/28/11</u>	<u>95/8</u>		<u>432</u>	<u>CTS</u>
Verbal Plugging:	<u>7"</u>		<u>1540</u>	<u>CTS</u>
Date Permission granted on:	<u>4/12</u>		<u>2048</u>	<u>950'</u>
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): <u>2070</u>				
Total Measured Depth (ft): <u>2021</u>				
Fresh Water Depth (ft.): <u>NONE</u>				
Salt Water Depth (ft.): <u>NONE</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>N/A</u>				
Void(s) encountered (N/Y) Depth(s) <u>N/A</u>				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation WE:R Pay zone depth (ft) 1790 - 1900

Gas: Initial open flow 150 MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow 150 MCF/d Final open flow 2 Bbl/d

Time of open flow between initial and final tests 24 Hours

Static rock Pressure 280 psig (surface pressure) after 24 Hours

Second producing formation _____ Pay zone depth (ft) _____

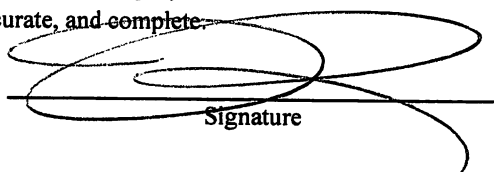
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ MCF/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock Pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

9/24/11
Date

Were core samples taken? Yes _____ No X

Were cuttings caught during drilling? Yes X No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Gamma Ray -
NEUTRON DENSITY - INDUCTION - TEMPERATURE

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

PERF FROM 1733 - 1875 40 HOLES TOTAL

FRAC WITH BAKER HUGHES APPROX 500 BBL
75 QUALITY FOAM TREATMENT USING 35000 LBS 20/40
SAND AND 500 GAL 15% HYDROCHLORIC ACID

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered: _____ Top Depth _____ / _____ Bottom Depth _____
Surface: _____

SALT SAND 1250 1280

MAXON 1300 1340

LITTLE LIME 1380 1430

BIG LIME 1530 1570

SAND 1610 1660

WEIR 1790 1900

OCT 19 1981

Environmental Protection

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 039-06304
API #: 039-06304

Farm name: Cromwell Operator Well No.: 2A
LOCATION: Elevation: 802' Quadrangle: Chio 7.5
District: Big Sandy County: Kanawha
Latitude: 38.504464 Feet South of _____ Deg. _____ Min. _____ Sec.
Longitude: -81.357815 Feet West of _____ Deg. _____ Min. _____ Sec.

Company: <u>Raven Ridge Energy</u>		Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: <u>3230 Pennsylvania Ave Charleston WV 25302</u>					
Agent: <u>Ryan Cunningham</u>					
Inspector: <u>Terry Urban</u>					
Date Permit Issued: <u>08/16/2011</u>			<u>95/8</u>	<u>375</u>	<u>CTS</u>
Date Well Work Commenced: <u>12/3/11</u>			<u>7"</u>	<u>1571</u>	<u>CTS</u>
Date Well Work Completed: <u>12/18/11</u>			<u>4 1/2</u>	<u>2086</u>	<u>150sk</u>
Verbal Plugging:					
Date Permission granted on:					
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>					
Total Vertical Depth (ft): <u>2161</u>					
Total Measured Depth (ft): <u>2160</u>					
Fresh Water Depth (ft.): <u>N/A</u>					
Salt Water Depth (ft.): <u>N/A</u>					
Is coal being mined in area (N/Y)? <u>N</u>					
Coal Depths (ft.): <u>N/A</u>					
Void(s) encountered (N/Y) Depth(s) <u>N/A</u>					

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation SQUAN Pay zone depth (ft) 1710
Gas: Initial open flow 250 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 275 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure 50 psig (surface pressure) after 36 Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

[Signature]
Signature

5/14/12
Date

Were core samples taken? Yes _____ No X

Were cuttings caught during drilling? Yes X No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list

Density / Induction / Temperature Gamma Ray / Neutron

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

PERT 1710 - 1750 (40 HOLES) 75% Quality FOAM
FRAC WITH 500 gal HCL 15% @ 35000 lbs
20/40 SAND (TOTAL 750 BBL FOAM
Treatment

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered:

Top Depth

Bottom Depth

Surface:

SAND & SHALE 0 - 210

SAND 210 - 325

SAND & SHALE 325 - 525

SAND 525 - 608

SHALE 608 - 655

SAND 655 - 682

SAND & SHALE 682 - 820

SAND 820 - 875

SAND & SHALE 875 - 956

SALT SAND 956 - 1370

SHALE 1370 - 1412

MAXTON 1412 - 1534

SHALE 1534 - 1552

LITTLE LIME 1552 - 1563

PENCIL CAVE 1563 - 1580

Big LIME 1580 - 1612

Big INJUN 1612 - 1703

SQUAN 1703 - 1755

SHALE 1755 - 1940

WEIR 1940 - 2088

SHALE 2088 - 2160

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: _____
API #: 039-06321

Farm name: Biro Dodd Operator Well No.: 1A
LOCATION: Elevation: 1075' Quadrangle: Ci'lo 7.5
District: Big Sandy County: Kanawha
Latitude: 38.501795 Feet South of _____ Deg. _____ Min. _____ Sec.
Longitude: 81.370043 Feet West of _____ Deg. _____ Min. _____ Sec.

Company: Raven Ridge Energy

Address: <u>3230 Pennsylvania Ave Charleston WV 25302</u>	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Agent: <u>RYAN CUNNINGHAM</u>				
Inspector: <u>TERRY GREEN</u>				
Date Permit Issued: <u>10/28/2011</u>		<u>9 5/8</u>	<u>395</u>	<u>CTS</u>
Date Well Work Commenced: <u>12/17/11</u>		<u>7"</u>	<u>1834</u>	<u>CTS</u>
Date Well Work Completed: <u>12/22/11</u>		<u>4 1/2</u>	<u>2349</u>	<u>150 sks</u>
Verbal Plugging: <u>N/A</u>				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): <u>2368'</u>				
Total Measured Depth (ft): <u>2368'</u>				
Fresh Water Depth (ft.): <u>N/A</u>				
Salt Water Depth (ft.): <u>N/A</u>				
Is coal being mined in area (N/Y)?				
Coal Depths (ft.): <u>N/A</u>				
Void(s) encountered (N/Y) Depth(s) <u>N/A</u>				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation WEIR Pay zone depth (ft) 2220
Gas: Initial open flow 110 MCF/d Oil: Initial open flow 1 Bbl/d
Final open flow 140 MCF/d Final open flow 2 Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure 180 psig (surface pressure) after 36 Hours

Second producing formation SQUAN Pay zone depth (ft) 2012
Gas: Initial open flow 50 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 50 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 36 Hours
Static rock Pressure 140 psig (surface pressure) after 48 Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

[Signature]
Signature

5/15/12
Date

Were core samples taken? Yes _____ No X

Were cuttings caught during drilling? Yes X No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Gamma Ray / Neutron Density / Induction - Temperature

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

WEIR 75% Quality Foam FRAC 1000 Gal 15% HCL
4,000 lbs 20/40 SAND PERF 2194-2220 (20 HOLES)
SQUAW 75% Quality Foam FRAC 500 Gal 15% HCL
25000 lbs 20/40 SAND PERF 2080-2012 (35 HOLES)

TOTAL 750 BBL FOAM TREAT

Plug Back Details Including Plug Type and Depth(s):

N/A

Formations Encountered:

Top Depth

Bottom Depth

Surface:

<u>SAND : SHALE 0 - 315</u>	<u>MAXTON 1688 - 1796</u>
<u>SAND 315 - 340</u>	<u>SHALE 1796 - 1838</u>
<u>SAND : SHALE 340 - 430</u>	<u>LITTLE LIME 1838 - 1846</u>
<u>SAND 430 - 460</u>	<u>SHALE 1846 - 1854</u>
<u>SAND : SHALE 460 - 502</u>	<u>BIG LIME 1854 - 1886</u>
<u>SAND 502 - 625</u>	<u>BIG INJUN 1886 - 1975</u>
<u>SAND : SHALE 625 - 806</u>	<u>SQUAW 1975 - 2025</u>
<u>SAND 806 - 882</u>	<u>SHALE 2025 - 2192</u>
<u>SHALE 882 - 920</u>	<u>WEIR 2192 - 2222</u>
<u>SAND 920 - 955</u>	<u>SHALE 2222 - 2368</u>
<u>SHALE 955 - 1000</u>	
<u>SAND 1000 - 1028</u>	
<u>SAND : SHALE 1028 - 1296</u>	
<u>SALT SAND 1296 - 1637</u>	
<u>SHALE 1637 - 1688</u>	

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 1-27-2012
API #: 47-049-02108

Farm name: Edwin Bunner Operator Well No.: 10H (832164)

LOCATION: Elevation: 1469' Quadrangle: Gladesville

District: Winfield County: Marion
Latitude: 10334' Feet South of 39 Deg. 30 Min. 00 Sec.
Longitude 3400' Feet West of 80 Deg. 57 Min. 30 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address:	P.O. Box 18496	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Oklahoma City, OK 73154-0496		20"	100'	100'	Driven
Agent: Eric Gillespie		13 3/8"	483'	483'	476 cf
Inspector: Tristan Jenkins		9 5/8"	2924'	2924'	1279 cf
Date Permit Issued: 7/20/2010		5 1/2"	13717'	13717'	2664 cf
Date Well Work Commenced: 10/16/2011					
Date Well Work Completed: 12/28/2011					
Verbal Plugging:					
Date Permission granted on:					
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>					
Total Vertical Depth (ft): 7,270'(cement plug @ 13,601')					
Total Measured Depth (ft): 13,728'					
Fresh Water Depth (ft.): 350'					
Salt Water Depth (ft.): None					
Is coal being mined in area (N/Y)? N					
Coal Depths (ft.): 100'					
Void(s) encountered (N/Y) Depth(s) N					

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7,652'-13,585'

Gas: Initial open flow 2,199 MCF/d Oil: Initial open flow Bbl/d

Final open flow MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours

Static rock Pressure 4,726 psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)

Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d

Final open flow MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours

Static rock Pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Marlene Williams
Signature

5-18-2012
Date

Were core samples taken? Yes _____ No ^N_____

Were cuttings caught during drilling? Yes Y No

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list _____
LWD GR from 6850-13684' MD.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

(See Attached)

Plug Back Details Including Plug Type and Depth(s): PBTD cement @ 13,601'

Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			

(See Attached)

Formation/Lithology	Top Depth (ft)	Bottom Depth (ft)
SS/SHALE	0	100
SS/COAL	100	150
SS/SHALE	150	640
SS	640	740
LS	740	899
Big Lime	899	995
Big Injun	995	1050
SHALE/SS	1050	1193
Berea	1193	1222
SHALE	1222	1440
SHALE/SS	1440	1640
SS	1640	1660
SHALE	1660	1920
SS	1920	2040
SHALE/SILT	2040	7050
Geneseo	7050	7090
Tully	7090	7170
Hamilton	7170	7460
Marcellus	7460	13728

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 1-27-2012
API #: 47-049-02119

Farm name: Edwin Bunner Operator Well No.: 6H (832212)

LOCATION: Elevation: 1469' Quadrangle: Gladesville

District: Winfield County: Marion
Latitude: 10360' Feet South of 39 Deg. 30 Min. 00 Sec.
Longitude 4860' Feet West of 79 Deg. 57 Min. 30 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
P.O. Box 18496				
Oklahoma City, OK 73154-0496	20"	100'	100'	Driven
Agent: Eric Gillespie	13 3/8"	483'	483'	480 cf
Inspector: Tristan Jenkins	9 5/8"	2868'	2868'	1215 cf
Date Permit Issued: 9/1/2010	5 1/2"	12919'	12919'	2749 cf
Date Well Work Commenced: 9/11/2011				
Date Well Work Completed: 1/12/2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 7,286'(cement plug @ 12,806')				
Total Measured Depth (ft): 12,919'				
Fresh Water Depth (ft.): 350'				
Salt Water Depth (ft.): None				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 420'				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7,697'-12,702'
Gas: Initial open flow 3,323 MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 4,736 psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Marlene Williams
Signature

5-18-2012
Date

Were core samples taken? Yes _____ No N

Were cuttings caught during drilling? Yes Y No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list _____
LWD GR from 6905-12869' MD.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

(See Attached)

Plug Back Details Including Plug Type and Depth(s): PBTD cement @ 12,806'

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>/</u>	<u>Bottom Depth</u>
<u>Surface:</u>			

(See Attached)

Formation/Lithology	Top Depth (ft)	Bottom Depth (ft)
SS/SHALE	0	420
SHALE/COAL	420	440
SHALE	440	640
SS	640	740
LS	740	899
Big Lime	899	995
Big Injun	995	1050
SHALE/SS	1050	1193
Berea	1193	1222
SHALE	1222	1440
SHALE/SS	1440	1640
SS	1640	1660
SHALE	1660	1920
SS	1920	2040
SHALE/SILT	2040	7160
Geneseo	7160	7184
Tully	7184	7240
Hamilton	7240	7586
Marcellus	7586	12919

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 1-27-2012
API #: 47-049-02141

Farm name: Edwin Bunner Operator Well No.: 3H (833018)

LOCATION: Elevation: 1469' Quadrangle: Gladesville

District: Winfield County: Marion
Latitude: 10338' Feet South of 39 Deg. 30 Min. 00 Sec.
Longitude 8434' Feet West of 80 Deg. 00 Min. 00 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
P.O. Box 18496 Oklahoma City, OK 73154-0496	13 3/8"	447'	447'	610 cf
Agent: Eric Gillespie	9 5/8"	2911'	2911'	1215 cf
Inspector: Tristan Jenkins	5 1/2"	13543'	13543'	2670 cf
Date Permit Issued: 2/10/2011				
Date Well Work Commenced: 8/13/2011				
Date Well Work Completed: 12/16/2011				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 7,244'(cement plug @13,428')				
Total Measured Depth (ft): 13,543'				
Fresh Water Depth (ft.): 350'				
Salt Water Depth (ft.): None				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 60'				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7,600'-13,399'

Gas: Initial open flow 3,553 MCF/d Oil: Initial open flow Bbl/d

Final open flow MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours

Static rock Pressure 4,709 psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)

Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d

Final open flow MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours

Static rock Pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Marlene Williams
Signature

5-18-2012
Date

Were core samples taken? Yes _____ No N

Were cuttings caught during drilling? Yes Y No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list _____
LWD GR from 6665-13492' MD.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

(See Attached)

Plug Back Details Including Plug Type and Depth(s): **PBTD cement @ 13,428'**

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>/</u>	<u>Bottom Depth</u>
<u>Surface:</u>			

(See Attached)

Formation/Lithology	Top Depth (ft)	Bottom Depth (ft)
SS/SHALE	0	60
COAL/SILT	60	80
SS/SHALE	80	450
SHALE	450	640
SS	640	740
LS	740	899
Big Lime	899	995
Big Injun	995	1050
SHALE/SS	1050	1193
Berea	1193	1222
SHALE	1222	1440
SHALE/SS	1440	1640
SS	1640	1660
SHALE	1660	1920
SS	1920	2040
SHALE/SILT	2040	6950
Geneseo	6950	6981
Tully	6981	7040
Hamilton	7040	7436
Marcellus	7436	13543

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 2-1-2012
API #: 47-049-02143

Farm name: Bryan Neel Operator Well No.: 5H (833070)

LOCATION: Elevation: 1692' Quadrangle: Fairmont East

District: Winfield County: Marion
Latitude: 1481' Feet South of 39 Deg. 27 Min. 30 Sec.
Longitude 1433' Feet West of 80 Deg. 00 Min. 00 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address: P.O. Box 18496	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Oklahoma City, OK 73154-0496	20"	100'	100'	Driven
Agent: Eric Gillespie	13 3/8"	455'	455'	510 cf
Inspector: Sam Ward	9 5/8"	3112'	3112'	1365 cf
Date Permit Issued: 4/8/2011	5 1/2"	15611'	15611'	3788 cf
Date Well Work Commenced: 6/8/2011				
Date Well Work Completed: 12/14/2011				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 7,483'(cement plug @15,517')				
Total Measured Depth (ft): 15,622'				
Fresh Water Depth (ft.): 350'				
Salt Water Depth (ft.): None				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): none				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7,779'-15,422'

Gas: Initial open flow 3,352 MCF/d Oil: Initial open flow -- Bbl/d

Final open flow ----- MCF/d Final open flow ----- Bbl/d

Time of open flow between initial and final tests ----- Hours

Static rock Pressure 4,864 psig (surface pressure) after ----- Hours

Second producing formation ----- Pay zone depth (ft) -----

Gas: Initial open flow ----- MCF/d Oil: Initial open flow ----- Bbl/d

Final open flow ----- MCF/d Final open flow ----- Bbl/d

Time of open flow between initial and final tests ----- Hours

Static rock Pressure ----- psig (surface pressure) after ----- Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Marlene Williams
Signature

5-18-2012
Date

Were core samples taken? Yes _____ No ☒

Were cuttings caught during drilling? Yes ☒ No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list no

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

(See Attached)

Plug Back Details Including Plug Type and Depth(s): Cement @ 15,517'

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>/</u>	<u>Bottom Depth</u>
<u>Surface:</u>			

(See attached)

FORMATION/LITHOLOGY	TOP DEPTH (ft)	BOTTOM DEPTH (ft)
Shale	0	860
Shale and LS	860	890
Shale	890	950
Shale and Sltst	950	1010
LS and Shale	1010	1190
LS and SS	1190	1310
Shale and minor SS	1310	1700
Big Injun	1700	2020
Shale and minor SS	2020	2590
Shale and Sltst	2590	2750
Balltown	2750	2998
Shale and minor Sltst	2998	6990
Shale and LS	6990	7040
Shale	7040	7124
Geneseo	7124	7165
Tully	7165	7234
Hamilton	7234	7470
Marcellus	7470	15562

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 2-1-2012
API #: 47-049-02144

Farm name: Bryan Neel Operator Well No.: 6H (833040)

LOCATION: Elevation: 1692' Quadrangle: Fairmont East

District: Winfield County: Marion
Latitude: 1496' Feet South of 39 Deg. 27 Min. 30 Sec.
Longitude 6780' Feet West of 79 Deg. 57 Min. 30 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
P.O. Box 18496				
Oklahoma City, OK 73154-0496	20"	100'	100'	Driven
Agent: Eric Gillespie	13 3/8"	475'	475'	518 cf
Inspector: Sam Ward	9 5/8"	3107'	3107'	1366 cf
Date Permit Issued: 3/10/2011	5 1/2"	13918'	13918'	3291 cf
Date Well Work Commenced: 7/10/2011				
Date Well Work Completed: 12/14/2011				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 7,489'(cement plug @13,826')				
Total Measured Depth (ft): 13,920'				
Fresh Water Depth (ft.): 350'				
Salt Water Depth (ft.): None				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): None				
Void(s) encountered (N/Y) Depth(s) N				

RECEIVED
Office of Oil & Gas

MAY 21 2012

WV Department of
Environmental Protection

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 8,124'-13,731'

Gas: Initial open flow 1,318 MCF/d Oil: Initial open flow -- Bbl/d

Final open flow -- MCF/d Final open flow -- Bbl/d

Time of open flow between initial and final tests -- Hours

Static rock Pressure 4,868 psig (surface pressure) after -- Hours

Second producing formation -- Pay zone depth (ft) --

Gas: Initial open flow -- MCF/d Oil: Initial open flow -- Bbl/d

Final open flow -- MCF/d Final open flow -- Bbl/d

Time of open flow between initial and final tests -- Hours

Static rock Pressure -- psig (surface pressure) after -- Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Marlene Williams
Signature

5-18-2012
Date

Were core samples taken? Yes _____ No ^X _____

Were cuttings caught during drilling? Yes ^X _____ No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list No

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

(See Attached)

Plug Back Details Including Plug Type and Depth(s): Cement @ 13,826'

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>Bottom Depth</u>
--------------------------------	------------------	---------------------

Shale 0 940

Shale and LS 940 1030

Shale 1030 1120

LS 1120 1270

Shale and minor SS/Sltst 1270 1990

LS and SS 1990 2710

Balltown 2710 3004

Shale 3004 3350

Shale and minor Sltst 3350 5900

Shale 5900 7367

Geneseo 7367 7400

Tully 7400 7487

Hamilton 7487 7817

Marcellus 7817 13852

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 2-24-2012
API #: 47-051-01291

Farm name: O E Burge Operator Well No.: 8H (626842)

LOCATION: Elevation: 1355' Quadrangle: Glen Easton 7 1/2'

District: Liberty County: Marshall
Latitude: 1947' Feet South of 39 Deg. 47 Min. 30 Sec.
Longitude 14861' Feet West of 80 Deg. 37 Min. 30 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
P.O. Box 18496				
Oklahoma City, OK 73154-0496	20"	100'	100'	Driven
Agent: Eric Gillespie	13 3/8"	1210'	1210'	1256 cf
Inspector: Bill Hendershot	9 5/8"	2623'	2623'	1130 cf
Date Permit Issued: 8/3/2009	5 1/2"	13260'	13260'	3237 cf
Date Well Work Commenced: 8/9/2011				
Date Well Work Completed: 1/22/2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 7115'(cement plug 13,186')				
Total Measured Depth (ft): 13260'				
Fresh Water Depth (ft.): 104'				
Salt Water Depth (ft.): 1653'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 910-1000', 1082'-1092', 1663-1673'				
Void(s) encountered (N/Y) Depth(s) N				

RECEIVED
Office of Oil & Gas

MAY 09 2012

WV Department of
Environmental Protection

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7,405'-13,170'
Gas: Initial open flow 5,990 MCF/d Oil: Initial open flow 22 Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 4,625 psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Markene Williams
Signature

5/7/2012
Date

Were core samples taken? Yes _____ No N

Were cuttings caught during drilling? Yes Y No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list GR, neutron, density, and resistivity
open hole logs run from 0-2635' MD; LWD GR from 6330-13211' MD.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

(See Attached)

Plug Back Details Including Plug Type and Depth(s): Cement @ 13,186'

Formations Encountered: _____ Top Depth _____ / _____ Bottom Depth _____
Surface: _____

RECEIVED
Office of Oil & Gas

MAY 09 2012

(See Attached)

WV Department of
Environmental Protection

Formation/Lithology	Top Depth (ft)	Bottom Depth (ft)
SHALE/LS	0	210
LS	210	350
LS/SHALE/SS	350	700
SHALE/SS/LS	700	820
SS	820	910
COAL	910	1000
LS/SHALE	1000	1082
Pittsburg Coal	1082	1092
LS/SHALE	1092	1210
LS	1210	1300
SHALE/LS	1300	1663
Freeport Coal	1663	1673
SHALE	1673	1850
COAL	1850	1870
SHALE/SS	1870	2000
LS	2000	2050
SHALE/LS	2050	2193
Big Lime	2193	2236
Big Injun	2236	2470
SHALE	2470	6989
Geneseo	6989	7009
Tully	7009	7052
Hamilton	7052	7280
Marcellus	7280	13211

RECEIVED
Office of Oil & Gas

MAY 09 2012

WV Department of
Environmental Protection

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 3-6-2012
API #: 47-051-01315

Farm name: O E Burge Operator Well No.: 6H (627381)

LOCATION: Elevation: 1355' Quadrangle: Glen Easton 7 1/2', Littleton 7 1/2'

District: Liberty County: Marshall
Latitude: 1960' Feet South of 39 Deg. 47 Min. 30 Sec.
Longitude 14,856' Feet West of 80 Deg. 35 Min. 00 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
P.O. Box 18496				
Oklahoma City, OK 73154-0496	20"	100'	100'	Driven
Agent: Eric Gillespie	13 3/8"	1227'	1227'	1218 cf
Inspector: Bill Hendershot	9 5/8"	2625'	2625'	1125 cf
Date Permit Issued: 10/20/2009	5 1/2"	13123'	13123'	3474 cf
Date Well Work Commenced: 9/12/2011				
Date Well Work Completed: 1/30/2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 7,117'(cement plug 13,049')				
Total Measured Depth (ft): 13,136'				
Fresh Water Depth (ft.): 104'				
Salt Water Depth (ft.): 1653'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 1085'				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7,400'-13,030'

Gas: Initial open flow 4,665 MCF/d Oil: Initial open flow 22 Bbl/d

Final open flow MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours

Static rock Pressure 4,626 psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)

Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d

Final open flow MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours

Static rock Pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Marlene Williams
Signature

5/7/2012
Date

RECEIVED
Office of Oil & Gas
MAY 9 2012
WV Department of
Environmental Protection

Were core samples taken? Yes _____ No X

Were cuttings caught during drilling? Yes X No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list No

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

(See Attached)

Plug Back Details Including Plug Type and Depth(s): Cement @ 13,049'

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>/</u>	<u>Bottom Depth</u>
--------------------------------	------------------	----------	---------------------

(See Attached)

FORMATION/LITHOLOGY	TOP DEPTH (ft)	BOTTOM DEPTH (ft)
Shale w/ minor LS	0	210
LS w/ minor Shale	210	350
Shale, LS, and SS	350	800
SS	800	1000
Shale, LS, and minor SS	1000	1085
Pittsburgh Coal	1085	1095
Shale and LS	1095	1530
Shale	1530	1700
SS and Shale	1700	2000
LS and SS	2000	2218
Big Injun	2218	2473
Shale	2473	5130
Shale w/ minor LS and SS	5130	5160
Shale w/ minor LS	5160	5750
Shale	5750	6550
Shale w/ minor LS	6550	7017
Geneseo	7017	7044
Tully	7044	7079
Hamilton	7079	7235
Marcellus	7235	7257
Shale	7257	13136

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 2-24-2012
API #: 47-051-01323

Farm name: O E Burge MSH

Operator Well No.: 10H (627382)

LOCATION: Elevation: 1355'

Quadrangle: Glen Easton 7 1/2'

District: Liberty

County: Marshall

Latitude: 1935' Feet South of 39 Deg. 47 Min. 30 Sec.
Longitude 14868' Feet West of 80 Deg. 37 Min. 30 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
P.O. Box 18496 Oklahoma City, OK 73154-0496	20"	100'	100'	Driven
Agent: Eric Gillespie	13 3/8"	1224'	1224'	1310 cf
Inspector: Bill Hendershot	9 5/8"	2620'	2620'	1133 cf
Date Permit Issued: 10/30/2009	5 1/2"	13999'	13999'	3748 cf
Date Well Work Commenced: 10/11/2011				
Date Well Work Completed: 2/8/2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 7,123'(cement plug 13,880')				
Total Measured Depth (ft): 14,000'				
Fresh Water Depth (ft.): 104'				
Salt Water Depth (ft.): 1653'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 1080'				
Void(s) encountered (N/Y) Depth(s) N				

RECEIVED
Office of Oil & Gas
MAY 09 2012

WV Department of
Environmental Protection

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7,400'-13,861'

Gas: Initial open flow 6,985 MCF/d Oil: Initial open flow 29 Bbl/d

Final open flow MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours

Static rock Pressure 4,630 psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)

Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d

Final open flow MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours

Static rock Pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Marlene Williams
Signature

5/7/2012
Date

Were core samples taken? Yes _____ No X

Were cuttings caught during drilling? Yes X No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list none

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

(See Attached)

Plug Back Details Including Plug Type and Depth(s): Cement @ 13,880'

Formations Encountered:
Surface:

Top Depth /

Bottom Depth

RECEIVED
Office of Oil & Gas

(See Attached)

MAY 09 2012

WV Department of
Environmental Protection

FORMATION/LITHOLOGY	TOP DEPTH (ft)	BOTTOM DEPTH (ft)
Shale and LS	0	340
LS, Shale, and SS	340	820
SS	820	1000
LS and Shale	1000	1079
Pittsburgh Coal	1079	1088
LS and Shale	1088	1530
Shale and LS	1530	1700
Shale and SS w/ minor LS	1700	2220
Big Injun	2220	2484
Shale	2484	4450
Shale w/ minor LS	4450	4530
Shale	4530	7020
LS and Shale	7020	7089
Geneseo	7089	7117
Tully	7117	7157
Hamilton	7157	7367
Marcellus	7367	7456
Shale w/ minor LS	7456	13866

RECEIVED
Office of Oil & Gas

MAY 09 2012

WV Department of
Environmental Protection

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: Max Flesher

Operator Well No.: HR 443

LOCATION: Elevation: 675'

Quadrangle: Reedy WV 7.5'

District: Reedy County: Roane
Latitude: 10775 Feet South of 38 Deg. 55 Min. 00 Sec.
Longitude 2983' Feet West of 81 Deg. 25 Min. 00 Sec.

Company: Hard Rock Exploration

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 1244 Martins Branch Road				
Charleston WV, 25312	20"	19	19	NA
Agent: Marc Scholl	13 3/8"	84	84	70 ft3 CTS
Inspector: Ed Gainer	9 5/8"	633	633	306 ft3 CTS
Date Permit Issued: 7/20/11	7"	2323	2323	537ft3 CTS
Date Well Work Commenced: 2/7/12	4.5"	7538	7538	130 ft3
Date Well Work Completed: 3/1/12				
Verbal Plugging:	Ran Gamma Log from KOP(3545' - 4164'TVD)			
Date Permission granted on:	Ran Gyro from 3500' to surface			
Rotary x Cable Rig	RECEIVED			
Total Depth (feet): 7630'TMD, 4164'TVD	Office of Oil & Gas			
Fresh Water Depth (ft.): 45', 250'	MAY 21 2012			
Salt Water Depth (ft.): 1587', 1871'	WV Department of			
Is coal being mined in area (N/Y)? N	Environmental Protection			
Coal Depths (ft.): <u>N/A</u>				

OPEN FLOW DATA

Producing formation Lower Huron Shale Pay zone depth (ft) 4288'MD- 7630 'MD
4117'TVD - 4164' TVD

Gas: Initial open flow 200 MCF/d Oil: Initial open flow Bbl/d
Final open flow 1500+ MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests 72 Hours
Static rock Pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE

Signed: James Flesher

By: President

Date: 5/21/2012

Formation:	Top:	Bottom:
Soil, Sand, Shale	0	1494
Salt Sand	1494	1754
Lime	1754	1794
Injun	1794	1814
Shale	1814	2199
Coffee Shale	2249	2264
Devonian Shale	2264	4164
Lower Huron Section	4080	4164

All depths shown As TVD

02/15/12 Run 175 jts of R-3 4.5" 11.6ppg N-80 casing with 15 stg to depth of 7538' set at 7546' KB.

02/16/12 RU 10k valve and DSA. Drop 2 1.25" balls and seat with N2 at 3500 scf/min. Pressure up to 2500psi and wait 20 min (11:30am). Continue to pressure up to open pump out shoe. RD N2 equipment and RU to 4.5"X7" annulus. Dump squeeze with 100sx cmt mixed at 15ppg

	Sleeve	Sleeve Size	Packers
Stage 1	P/O Shoe	N/A	7408
Stage 2	7274	1.250	7185
Stage 3	7051	1.500	6962
Stage 4	6828	1.750	6739
Stage 5	6605	1.875	6516
Stage 6	6382	2.000	6293
Stage 7	6159	2.125	6070
Stage 8	5936	2.250	5848
Stage 9	5713	2.375	5625
Stage 10	5491	2.500	5402
Stage 11	5268	2.750	5179
Stage 12	5045	2.875	4956
Stage 13	4822	3.125	4733
Stage 14	4599	3.250	4510
Stage 15	4376	3.500	4288
Anchor			2647

RECEIVED
Office of the Attorney General

MAY 21 2012

WV Department of
Environmental Protection

03/01/12 MIRU Baker Services. Start pumping N2 on Stg 1 at 40k scf/min and work rate up according to pressure. Pump total of 1MMscf N2. Drop ball for Stg 2. Wait for ball to drop. Start pumping at 16k scf/min and land ball. Open sleeve at 461 lpsi. Up rate and pump total of 1MMscf N2. Drop ball for Stg 3. Wait for ball. Pump ball down at 18k scf/min and land ball. Open sleeve at 4736psi. Up rate and pump total of 1MMscf N2. Drop ball for Stg 4. Repeat for stgs 4- 15.

	Stg 1	Stg 2	Stg 3	Stg 4	Stg 5	Stg 6	Stg 7	Stg 8
Max P	5987	6148	5996	5986	5986	5878	5876	5718
Avg P	4490	5879	5790	5834	5809	5610	5835	5529
Max R	90.8	73.3	84.0	68.2	858.9	80.1	85.5	103.0
Avg R	67.7	52.5	76.9	56.0	83.2	74.8	79.0	96.6
5 min	2253	2780	2480	2910	2527	2472	2764	2675
	Stg 9	Stg 10	Stg 11	Stg 12	Stg 13	Stg 14	Stg 15	
Max P	5459	5713	5095	5253	5467	5301	5235	
Avg P	5331	5567	5007	5151	5379	5212	5206	
Max R	105.0	111.0	107.6	109.0	106.6	108.5	110.0	
Avg R	103.0	110.0	107	108.0	105.3	107.0	109.0	
5 min	2274	2399	2266	2310	2366	2226	2288	

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: Clair and Charlotte Allen Operator Well No.: HR 413

LOCATION: Elevation: 713' Quadrangle: Reedy WV 7.5'

District: Reedy County: Roane
Latitude: 4728' Feet South of 38 Deg. 55 Min. 00 Sec.
Longitude 4258' Feet West of 81 Deg. 27 Min. 30 Sec.

Company: Hard Rock Exploration

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 1244 Martins Branch Road				
Charleston WV, 25312	20"	19'	19'	NA
Agent: Marc Scholl	13 3/8"	84	84	51ft3 CTS
Inspector: Ed Gainer	9 5/8"	674	674	318 ft3 CTS
Date Permit Issued: 10/28/11	7"	2366	2366	603 ft3 CTS
Date Well Work Commenced: 2/17/12	4.5"	7823	7823	130 ft3
Date Well Work Completed: 3/13/12				
Verbal Plugging:	Ran Gamma Log from KOP(3560' - 4730'TVD)			
Date Permission granted on:	Ran Gyro Log from (3500' - Surface)			
Rotary x Cable Rig	Ran Open hole Log from (2408' - Surface)			
Total Depth (feet): 7933'TMD, 4196'TVD			Office of Oil & Gas	
Fresh Water Depth (ft.): 55-60'				
			JUN 06 2012	
Salt Water Depth (ft.): 1240', 1900'				
			WV DEPARTMENT OF	
Is coal being mined in area (N/Y)? N			Environmental Protection	
Coal Depths (ft.): <u>N/A</u>				

OPEN FLOW DATA

Producing formation Lower Huron Shale Pay zone depth (ft) 4287'MD- 7933 'MD
4130'TVD - 4196' TVD

Gas: Initial open flow oder MCF/d Oil: Initial open flow Bbl/d
Final open flow 2000+ MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests 72 Hours
Static rock Pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: James J. [Signature]

By: President

Date: 6/6/12

<u>Formation:</u>	<u>Top:</u>	<u>Bottom:</u>
Soil/Sand/Shale	0	1668
Salt Sand	1668	1963
Shale	1963	2295
Coffee Shale	2295	2307
Berea Sand	2307	2309
Devonian Shale	2309	4196
Lower Huron Section	4140	4196

All depths shown As TVD

02/26/12 Run total of 181 jts of 4.5" 11.6ppf R-3 casing to depth of 7823'. Run 17 stg Packers Plus mechanical packer system. Finish running casing at 8:00pm. Land hanger in wellhead and ND BOP. RU DSA and 10k frac valve at 10:15pm. MIRU Baker cmt crew. Drop ball for P/O shoe, and start pumping N2 to land balls. Pressure up on casing to set packers and open shoe at 3763psi. SWI. RD N2 equipment. RU to perform annular squeeze. Dump with 100sx type 1 3% CaCl. SWI.

	Sleeve	Sleeve Size	Packers
Stage 1	7821	Pump Out	7727
Stage 2	7593	1.250	7504
Stage 3	7370	1.500	7282
Stage 4	7148	1.625	7059
Stage 5	6967	1.750	6878
Stage 6	6744	1.875	6655
Stage 7	6521	2.000	6432
Stage 8	6298	2.125	6209
Stage 9	6117	2.250	6028
Stage 10	5894	2.375	5805
Stage 11	5671	2.500	5583
Stage 12	5448	2.625	5360
Stage 13	5225	2.750	5137
Stage 14	5044	2.875	4955
Stage 15	4822	3.000	4733
Stage 16	4599	3.250	4510
Stage 17	4376	3.500	4287
Anchor			2688

RECORDED
Office of Oil & Gas

JUN 06 2012

WV Department of
Environmental Protection

03/12/12 Well head pressure 1310psi. Pressure test lines and start pumping at 7:40am at half rate. Work trucks to 100k scf/min and pump total of 1MM scf N2. Shut down and drop 1.5" ball for Stg 2. Wait 10 min and start pumping ball down at 18k scf/min. Land ball and open sleeve at 4329psi. Increase rate and pump total of 1MM scf N2. Shut down, drop 1.625" ball for Stg 3 Repeat Stimulation process for Stgs 3 - 17.

	Stg 1	Stg 2	Stg 3	Stg 4	Stg 5	Stg 6	Stg 7	Stg 8	Stg 9
Max P	5909	5338	5198	5052	5128	4892	4957	4741	4651
Avg P	5514	5304	5099	4980	5005	4803	4899	4641	4609
Max R	101.0	102.0	103.0	104.0	109.0	106.0	109.0	106.0	105.0
Avg R	100.0	100.0	102.0	103.0	107.0	15.0	108.0	104.0	104.0
5 min	1790	1820	1874	1915	1904	1934	1945	1920	1980

	Stg 10	Stg 11	Stg 12	Stg 13	Stg 14	Stg 15	Stg 16	Stg 17
Max P	4586	4372	4396	4189	4398	4198	4169	4119
Avg P	4543	4331	4332	4159	4337	4165	4149	4098
Max R	105.0	104.0	105.0	101.0	109.0	106.0	105.0	105.0
Avg R	104.0	103.0	103	101.0	107.0	105.0	104.0	103.0
5 min	1959	1912	1964	1960	1941	1949	1904	1920

WR-35
Rev (5-01)

DATE: 5/9/12
API #: 47-087-04713

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: John Tatterson Operator Well No.: HR 458

LOCATION: Elevation: 970' Quadrangle: Reedy WV 7.5'

District: Reedy County: Roane
Latitude: 12907 Feet South of 38 Deg. 55 Min. 00 Sec.
Longitude 8718' Feet West of 81 Deg. 25 Min. 00 Sec.

Company: Hard Rock Exploration

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 1244 Martins Branch Road Charleston WV, 25312				
Agent: Marc Scholl	13 3/8"	40	40	NA
Inspector: Ed Gainer	9 5/8"	890	890	432 ft3 CTS
Date Permit Issued: 11/30/11	7"	2582	2582	791 ft3 CTS
Date Well Work Commenced: 1/24/12	4.5"	7623	7623	130 ft3
Date Well Work Completed: 3/7/12				
Verbal Plugging:	Ran Gamma Log from KOP(3777' - 4440'TVD)			
Date Permission granted on:	Ran Gyro from 3777' to surface			
Rotary x Cable Rig				
Total Depth (feet): 7676'TMD, 4458'TVD				
Fresh Water Depth (ft.): 595'				
Salt Water Depth (ft.): 1895', 2095'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): <u>N/A</u>				

OPEN FLOW DATA

RECEIVED
Office of Oil & Gas
MAY 21 2012
WV Department of
Environmental Protection

Producing formation Lower Huron Shale Pay zone depth (ft) 4489'MD- 7676 'MD
4370'TVD - 4458' TVD

Gas: Initial open flow 200 MCF/d Oil: Initial open flow Bbl/d
Final open flow 1500+ MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests 72 Hours
Static rock Pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: James J. Taylor

By: James J. Taylor
Date: 5/21/2012

Formation: **Top:** **Bottom:**

Soil, Sand, Shale	0	1789
Salt Sand	1789	2049
Lime	2049	2089
Injun	2089	2109
Shale	2109	2494
Coffee Shale	2544	2559
Devonian Shale	2559	4458
Lower Huron Section	4360	4458

All depths shown As TVD

02/06/12 Run total of 177 jts of R-3 4.5" 11.6ppf N-80 casing to depth of 7623'. Run 15 stg Packers Plus mechanical system. Pump N2 to set packers and hold for 20 min at 3000psi. Continue to increase pressure and open stage 1. RU to perform annular squeeze and pump 100sk at 15ppg. Follow cmt with 3bbl water.

	Sleeve	Sleeve Size	Packers
Stage 1	7621.0	P/O Shoe	7448.79
Stage 2	7350	1.500	7261.89
Stage 3	7127	1.375	7038.99
Stage 4	6946	1.625	6857.89
Stage 5	6723	1.750	6634.98
Stage 6	6500	1.875	6412.03
Stage 7	6319	2.000	6230.91
Stage 8	6096	2.125	6007.96
Stage 9	5873	2.375	5785.03
Stage 10	5650	2.500	5562.09
Stage 11	5469	2.750	5380.95
Stage 12	5246	2.875	5158.01
Stage 13	5023	3.125	4935.13
Stage 14	4801	3.250	4712.18
Stage 15	4619.0	3.500	4489.27
Anchor			2892.53

RECEIVED
Office of Oil & Gas
MAY 21 2012
Department of
Environmental Protection

03/07/12 . MIRU Baker Stim crew. Bring trucks in at half rate and work up to 94k scf. Pump total of 1MM scf N2. Shut down and load ball for Stg 2. Start pumping at 18k scf/min to land ball and open sleeve at 4310psi. Up rate and pump total of 1MM scf N2. Drop ball for Stg 3 and wait for product. Start pumping at 17k scf, land ball and open sleeve at 4419psi. Up rate and pump total 1MMscf N2. Drop ball for Stg 4 and repeat procedure for stages 4 - 15.

	Stg 1	Stg 2	Stg 3	Stg 4	Stg 5	Stg 6	Stg 7	Stg 8
Max P	5963	5995	5930	5743	5596	5689	5505	4949
Avg P	5742	5783	5008	5557	5530	5602	5475	4909
Max R	94.2	90.8	96.9	104.4	104.5	104.2	105.0	106.0
Avg R	84.9	89.0	91.1	101.8	103.2	102.7	103.0	104.6
5 min	2457	2345	2129	2155	2100	2191	2147	1990

	Stg 9	Stg 10	Stg 11	Stg 12	Stg 13	Stg 14	Stg 15
Max P	5059	4854	4439	4508	4376	4495	4351
Avg P	5008	4820	4420	4443	4362	4405	4306
Max R	105.0	106.0	105.0	107.0	105.0	103.0	105.0
Avg R	102.4	103.0	104	105.0	104.0	102.0	104.0
5 min	N/A	1936	1851	1954	1912	2012	2107 (2 min)

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: May 30, 2012
API #: 47-103-02695

Farm name: Weekley, Larry I. & Donna S. Operator Well No.: Weekley 8H

LOCATION: Elevation: 727' Quadrangle: Porters Falls

District: Green County: Wetzel
Latitude: 12,170 Feet South of 39 Deg. 37 Min. 30 Sec.
Longitude: 8,000 Feet West of 80 Deg. 45 Min. 00 Sec.

Company: Stone Energy Corporation

Address: 6000 Hampton Center, Suite B	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Morgantown, WV 26505	20"	95'	95'	GTS
Agent: Tim McGregor	13.375"	692'	692'	843 - CTS
Inspector: Derek Haught	9.625"	2,177'	2,177'	945 - CTS
Date Permit Issued: 8/10/2011	5.5"		11,509'	2,755
Date Well Work Commenced: 9/29/2011				
Date Well Work Completed: 4/5/2012				
Verbal Plugging:		1st Plug Back from 2,985' to 1,800'		
Date Permission granted on:		2nd Plug Back from 2,300' to 1,800'		
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>		See Details on Page 2		
Total Vertical Depth (ft): 6,464				
Total Measured Depth (ft): 11,509				
Fresh Water Depth (ft.): 105				
Salt Water Depth (ft.): 817				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 587				
Void(s) encountered (N/Y) Depth(s) N/A				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation _____ Pay zone depth (ft) _____

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ MCF/d Final open flow _____ Bbl/d WELL IS NOT YET STIMULATED

Time of open flow between initial and final tests _____ Hours

Static rock Pressure _____ psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ MCF/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock Pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

6/5/2012
Date

Were core samples taken? Yes _____ No X

Were cuttings caught during drilling? Yes X No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list MWD Gamma Ray and Mud Log

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

Well has not yet been stimulated. Once completed a revised WR-35 Form will be submitted.

Plug Back Details Including Plug Type and Depth(s): 1st kick off plug from 2,985' to 2,104' pumped 3/13/2012. Set with 380 sacks Class H (@ 15.8 ppg) cement in two lifts. 2nd kick off plug from 2,300' to 1,844' pumped on 3/22/2012. Set with 196 sacks Class A (@ 16.0 ppg) cement.

Formations Encountered: Surface:	Top Depth	/	Bottom Depth
-------------------------------------	-----------	---	--------------

See attached sheet for formations encountered and their depths.

WEEKLEY #8H
API 47-103-02695
Stone Energy Corporation

	Horizontal				
	Top	Top	(ft	Bottom (ft	Bottom (ft
	(ft TVD)	MD)		TVD)	MD)
Sandstone & Shale	Surface		*	587	
Pittsburgh Coal	587		*	592	
Sandstone & Shale	592		*	1992	
Little Lime	1680		*	1710	
Big Lime	1710		*	1810	
Big Injun	1810		*	1868	
Sandstone & Shale	1686		*	2340	
Berea sandstone	2340		*	2351	
Shale	2351		*	2538	
Gordon	2538		*	2543	
Undiff Devonian Shale	2543		*	5685	5820
Rhinestreet	5685	5820	~	6115	6290
Cashaqua	6115	6290	~	6228	6438
Middlesex	6228	6438	~	6252	6474
West River	6252	6474	~	6318	6582
Geneseo	6318	6582	~	6344	6634
Tully limestone	6344	6634	~	6376	7002
Hamilton	6376	7002	~	6418	6820
Marcellus	6418	6820	~	6464	11509
TD	6464	11509			

* From Pilot Hole Log and Driller's Log

~ From MWD Gamma Log

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012
API #: 47-001-03013

Farm name: Smith, Joanne V.

Operator Well No.: Waldman 4

LOCATION: Elevation: 1370' GL / 1380' KB

Quadrangle: Brownston 7.5

District: Pleasant

County: Barbour

Latitude: 6,590

Feet South of 39

Deg. 15

Min. 00

Sec.

Longitude 1,240

Feet West of 80

Deg. 10

Min. 00

Sec.

Company: Petroleum Development Corporation

Address: <u>120 Genesis Boulevard</u>	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>Bridgeport, WV 26330</u>	<u>11 3/4"</u>	<u>72'</u>	<u>72'</u>	<u>Sanded In</u>
Agent: <u>Bob Williamson</u>	<u>8 7/8"</u>	<u>1354'</u>	<u>1354'</u>	<u>448</u>
Inspector: <u>Bryan Harris</u>	<u>5 1/2"</u>	<u>7898'</u>	<u>7898'</u>	<u>297</u>
Date Permit Issued: <u>01/30/2009</u>				
Date Well Work Commenced: <u>07/15/2009</u>	<u>2 3/8"</u>	<u>7709'</u>	<u>7709'</u>	
Date Well Work Completed: <u>11/18/2009</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): <u>7908'</u>				
Total Measured Depth (ft): <u>7908'</u>				
Fresh Water Depth (ft.): <u>31', 111'</u>				
Salt Water Depth (ft.): <u>None Reported</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>142', 433', 519'</u>				
Void(s) encountered (N/Y) Depth(s) <u>N</u>				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7720'

Gas: Initial open flow NA MCF/d Oil: Initial open flow Bbl/d

Final open flow 200 MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours

Static rock Pressure 2300 psig (surface pressure) after 24 Hours

Second producing formation Pay zone depth (ft)

Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d

Final open flow MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours

Static rock Pressure psig (surface pressure) after Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

10/16/2012
Date

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes XX No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Mud Log, Weatherford Triple Combo, Compact Monopole/Cross Dipole Semblance, Protechnics SpectraScan, Hotwell GR/CCL, Weatherford GR/CCL/CBL

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

8/21/2009: MIRU Hotwell & run GR/CCL log from 7876' - 7240'. Perf from 7806-7826 (80 holes) & from 7720-7740 (80 holes).

10/1/2009 60 bbls of fluid was pumped at a rate of 15 bpm and an ISIP of 2399 was obtained. 5 minutes later, the stimulation was continued with starting pressure at 2340 psi.

The pressure "rolled over" at 4829 psi at a rate of 35 bpm. The rate was increased to 66 bpm with a treating pressure of 5082 psi. The pad was pumped as designed. Introduction of sand began with

100 mesh at 0.5 ppa. The rate was 69 bpm at a TP of 4910. The 100 mesh was continued as designed with increases to concentration as follows: 0.5, 0.75, 1, 1.25, 1.5, 2, 2.5. This sequence was performed

twice giving a total of 1021 sacks of 100 mesh. Once the 100 mesh was completed, 40/70 mesh sand was utilized. The 40/70 began to be pumped at a rate of 70 bpm and a TP of 4715 psi.

The concentration was as follows: 1, 1.5, 2, 2.5, 3, 4. The total 40/70 proppant pumped was 1960 sacks. The maximum pressure recorded was 5329 psi near the flush.

~~Plug Back Details Including Plug Type and Depth(s):~~ The maximum rate was 71 bpm. The average treating pressure was 4830 psi and the average rate was 69 bpm. The ISIP after stimulation was 4070 psi, 5 minute equal to 3366 psi, 10 minutes equal to 3249 psi, and the 15 minute equal to 3093 psi.

Formations Encountered: _____ Top Depth _____ / _____ Bottom Depth
Surface: _____

L Lime	1554	1570	
B Lime	1594	1782	
Gantz	2066	2076	Show Gas
Fifty Foot	2134	2202	
Gordon Stray	2270	2279	
4th Sand	2454	2532	
5th Sand	2572	2616	
Benson	4522	4568	Show Gas
Sycamore	6878	6914	
Tully	7545	7597	
Marcellus	7750	7842	Show Gas
Tioga Ash	7842	7848	
Onondaga LS	7848	7852	
Huntersville CH	7852	7990	

OCT 17 2012

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 1-27-2010
API #: 47-009-00093

Farm name: Barry Greathouse A Operator Well No.: 10H (833221)

LOCATION: Elevation: 1150' Quadrangle: Tiltonsville

District: Buffalo County: Brooke
Latitude: 2980' Feet South of 40 Deg. 12 Min. 30 Sec.
Longitude 6140 Feet West of 80 Deg. 37 Min. 30 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
P.O. Box 18496 Oklahoma City, OK 73154-0496	20"	60'	60'	Driven
Agent: Eric Gillespie	13 3/8"	334'	334'	400 cf
Inspector: Bill Hendershot	9 5/8"	1712'	1712'	788 cf
Date Permit Issued: 5/6/2011	5 1/2"	11598'	11598'	3050 cf
Date Well Work Commenced: 5/13/2011				
Date Well Work Completed: 9/20/2011				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 5,897'(cement plug @11,508')				
Total Measured Depth (ft): 11,598'				
Fresh Water Depth (ft.): 525'				
Salt Water Depth (ft.): 1136'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 296				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 6,292'-11,424'

Gas: Initial open flow 994 MCF/d Oil: Initial open flow 167 Bbl/d

Final open flow MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours

Static rock Pressure 3,833 psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)

Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d

Final open flow MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours

Static rock Pressure psig (surface pressure) after Hours

RECEIVED
OFFICE OF OIL & GAS
WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

Marlene Williams
Signature

5/8/2012
Date

Were core samples taken? Yes _____ No X

Were cuttings caught during drilling? Yes X No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list GR, density, neutron, induction

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

(See Attached)

Plug Back Details Including Plug Type and Depth(s): Cement @ 11,508

Formations Encountered: <u>Surface:</u>	Top Depth	/	Bottom Depth
--	-----------	---	--------------

LS / SS | 0 | 296

Pittsburgh Coal | 296 - 305

SHALE | 305 - 350

SHALE / SS | 350 - 480

SS | 480 - 950

SHALE | 950 - 1050

SS | 1050 - 1320

SS / SHALE | 1320 - 1440

BIG INJUN | 1440 - 1577

SHALE | 1572 - 5876

GENESEO | 5876 - 5896

TULLY | 5896 - 5978

HAMILTON | 5978 - 6198

MARCELLUS | 6198 - 11598

RECEIVED
Office of the
Attorney General
WV Department of
Environmental Protection